Vulnerability to depression: The role of dependency and self-criticism and gender-related differences

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Declaration

This thesis has been composed by myself and the work contained herein is my own.

Signed

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Abstract

The concept of vulnerability to depression has been incorporated into most current models of depression. While differing terminology is used, essentially there is agreement that two specific traits act as vulnerability factors: Dependency and Self-criticism. As vulnerability factors, they are seen to be stable characteristics that are present regardless of mood-state. The research so far has provided conflicting evidence for this stability. In addition, there is some evidence that suggests a gender difference in the experience of these vulnerabilities. This study aimed to further investigate the nature of these factors and the possible gender differences. Comparisons were made between three groups comprising currently depressed individuals, individuals with a previous diagnosis of depression who had recovered, and a control group of individuals who had never been depressed. Each participant completed the Beck Depression Inventory-II (BDI-II), the Hospital Anxiety and Depression Scale, and two measures of dependency and self-criticism: the Depressive Experiences Questionnaire (DEQ) and the Dysfunctional Attitudes Scale-24 (DAS-24). Based on findings from previous research, it was hypothesised that Dependency and Self-criticism would be greater in the currently depressed and recovered depressed groups than in the control group. Further to this, gender differences were expected to be found only in the recovered group, with male participants expected to be more dependent than female participants. Results were considered in the context of the relevant literature and suggestions were offered for future research.

Contents

Review of Literature

1.1 Introduction

Many current models of depression propose a role for psychological vulnerability factors in the development of depression (e.g. Klein, 1934; Beck, 1967; Lewinsohn, Hoberman, Teri & Hautzinger, 1985). These can be categorised as personality types or schemas which are stable, underlying traits and are seen to predispose an individual to the possible development of depression. Similar concepts have been identified by a number of theorists (e.g. Blatt, 1976; Arieti & Bemporad, 1980; Beck, 1983) and these factors might be generally classified as dependency and self-criticism. The identification of such vulnerabilities has implications for the treatment of depression, particularly in relation to the possibility of relapse prevention if pervasive underlying factors are not addressed in therapy. Further to this, studies of psychological vulnerability may uncover possible explanations for the observed preponderance of depression in the female population as compared with males.

This review of the literature will begin with an outline of the nature of depression, with particular reference to the possible explanations for gender differences in relation to the disorder. Also, theories of depression will be presented as a context for discussion of the role of vulnerability. Finally, research will be reviewed which bears on the specific personality types, the concepts of dependency and self-criticism and their equivalents, and their association with vulnerability to depression as proposed by the theoretical models.

1.2 Nature of depression

1.2.1 Prevalence

Roth & Fonagy (1996) reviewed recent literature on prevalence rates, suggesting that around 6% of the population suffer from either Major Depressive Disorder (MDD) or dysthymia. The National Institute of Mental Health (NIMH) Epidemiological Catchment Area (ECA) survey (Robins & Reiger, 1991) estimated that 6 per cent of the population met the DSM-III-R criteria for affective disorders within a six month period. MDD and dysthymia were found to be the most prevalent, with each of these disorders affecting about 3 per cent of the population. Life time prevalence rates have been reported at 17.1 per cent (Blazer, Kessler, McGonagle, & Swartz, 1994). The ECA study also found that prevalence rates differed across gender (see section 1.2.3) and age groups with rates being much higher for women and younger adults.

1.2.2 Course of depression

In a recent review of the literature, Ingram, Miranda, & Segal (1998) reported that untreated depression can last between an estimated six and 12 months, however this could be as much as 24 months. In about a third of all cases, the depressive episode may last over two years or recovery may be partial between episodes, and a quarter of cases with recurrent depression will develop dysthymia. Piccinelli & Wilkinson (1994), in their review of follow-up studies of depressed patients, reported that recovery rates increase over time with 53 per cent of individuals recovered by six months. However, they found that a quarter had relapsed within a year and 75 per cent had developed another depressive episode within 10 years. They also found that 10 per cent had developed a persistent depressive disorder.

1.2.3 Gender differences

Despite variation in reported ratios, there is a general consensus that the female-to-male ratio for the development of depression is approximately two to one (Ingram *et al.*, 1998). Kessler, McGonagle, Swartz, Blazer & Nelson (1993) found that the onset of the first episode of depression occurs around the same age for both sexes and chronicity and recurrence rates are also similar. However, they reported that the difference lies in that women are far more likely to develop the first episode of depression than men.

1.3 Theories of gender differences in depression

Various theories have been put forward as possible explanations for this apparent difference in prevalence rates for females and males such as differences in precipitating factors and cognitive processes. Ingram *et al.* (1998) reviewed these theories and concluded that there is no one clear hypothesis which has been widely accepted as yet.

There are three primary hypotheses which propose to account for the apparent gender difference in the prevalence of depression: the artefact hypothesis, the biological hypothesis, and the psychosocial hypothesis (Amenson & Lewisohn, 1981). The artefact hypothesis states that there is no actual difference in the prevalence rates for men and women, but the difference is an artefact of reporting rates, or as a result of methodological inconsistencies. The biological hypothesis suggests that women have a particular vulnerability to depression due to the effects of the reproductive cycle or sex-linked genes. Finally, the psychosocial hypothesis would account for the

preponderance of depression in females through either explanations based on the interaction of sex and demographic variables or on gender differences in beliefs, attitudes, identities and behaviours through differing socialisation processes. Each of these hypotheses will be discussed in turn.

1.3.1 Artefact hypothesis

A common argument for the higher prevalence rate of depression in women than men has been the assumption that women are willing to admit to symptoms of depression or emotional distress more readily than men. In effect, therefore, the difference in prevalence is due to a difference in rates of reporting. As reported by Chevron, Quinlan & Blatt (1978) males may place greater value on competence and assertiveness, while women value a role associated with warmth and expressiveness thus men may be less willing to admit to weakness while women may be more likely to discuss their problems. Newmann (1984) suggests that women are more likely to report minor symptoms on self-report measures of depression, thus elevating their scores and the apparent severity of their experience of depression. Contrary to this argument however, Nolen-Hoeksema (1990) reviewed the literature on the reporting of depressive symptoms and found no gender difference. The mixed evidence suggests that these proposed differences in reporting could not account for the clear gender difference in prevalence rates of depression.

A related argument for the gender differences centres around the increased likelihood of women to seek help more than men. However, Amenson & Lewinsohn (1981)

found no gender differences in help-seeking when comparing men and women with equivalent levels of depressive symptomatology.

Differences in the expression of depression have also been proposed. Nolen-Hoeksema (1990, 1987) suggested that the symptoms of depression in females may be more likely to be expressed passively while men may act aggressively and abuse alcohol when depressed. If this were the case, women would be more likely to be diagnosed as depressed while the male experience of depression may not be acknowledged as such and recorded as an alternative disorder. Egeland & Hostetter (1983) conducted research on communities where alcohol is prohibited, thus increasing the likelihood that the male and female experience of depression is equal, and they found the rates of depression in males and females to be equivalent. However, Nolen-Hoeksema (1990) suggested that higher rates of alcohol abuse in males are in fact due to a separate disorder and that similar circumstances may result in different disorders in males and females rather than a different expression of the same disorder. Again, as the evidence is equivocal it seems that this explanation is unable to comprehensively explain the prevalence of depression in women.

Finally, methodological inconsistencies have been blamed for identifying gender differences in the prevalence of depression. For example, Weissman & Klerman (1977) noted that the type of depression studied is often not clear. Clearly, if sub-clinical groups are being included in rates of depression, this may affect the prevalence rates. However, as Brems (1995) highlights, if this is the case, it still means that

women are more likely to be depressed than men even if a proportion of them cannot be classed as clinically depressed.

The evidence accumulated suggests that the higher prevalence rates of depression in women cannot be explained by the artefact hypothesis alone. Much of the evidence is conflicting, and even possible explanations which have received much support, such as differing methodologies, cannot fully account for the two-to-one ratio. Therefore, the marked difference in the reported prevalence rates for men and women may be a reasonably accurate depiction of the figures, rather than purely a quirk either due to sex-role differences or methodological problems.

1.3.2 Biological hypothesis

Genetic theories would suggest that depression is linked to the X chromosome. As women inherit two X chromosomes but men only inherit one from their parents, it is proposed that women have a greater chance of receiving a depression-linked chromosome. This theory has not been supported by the literature (Brehms, 1995).

The literature focusing on reproductive-related events similarly has failed to provide an adequate explanation for the gender differences in the prevalence of depression. Studies have primarily looked into the effects of premenstrual syndrome, menopause, or postpartum syndromes on the rates of depression. The evidence suggests that hormonal changes only affect the occurrence of atypical depressions (Hamilton, Lloyd, Alagna, Phillips & Pinkel, 1984) and this alone could not account for the significantly greater preponderance of depression in women.

1.3.3 Psychosocial hypothesis

Social factors, such as socio-economic status, unemployment, and education levels, have been linked with the development and maintenance of depression. Low levels of income and education, and high levels of unemployment are correlated with depression (Brems, 1995). In a literature review, Brems (1995) suggests that these factors are particularly relevant to women especially when comparing these findings to information supplied by the U.S. Department of Commerce (1988) stating that 51 per cent of all American households living at or below the poverty line are headed by unmarried women with only 4.8 per cent headed by unmarried men. However, clearly cultural differences limit the applicability of this data to a UK population. Differences in the occurrence of precipitating factors for depression was suggested by Radloff & Rae (1979). They reported that women experience more "life-events" than men, however this is not sufficiently in excess of rates for men and therefore cannot adequately account for the two-to-one ratio.

Research into patterns of socialisation across gender has revealed that girls and boys are treated quite differently both by their parents and at school (Gurian, 1987). It was found that at home, parents encourage their sons to be independent and outgoing, while daughters are encouraged to stay with their mothers and be more dependent. Also, children were found to be socialised to model their same-sex parent, thus perpetuating the sex-role stereotypes. McGrath, Keita, Strickland & Russo (1991) concluded that this pattern results in women developing characteristics which inhibit their ability to cope with stressors and thus increases the likelihood of the development and maintenance of depressive symptomatology. Further to this, the

male sex-role may actually serve to protect individuals from depression. Problem-solving strategies adopted by men are more active than the passive, ruminating styles more commonly seen in women (McGrath *et al.*, 1991).

Development of specific attributional styles may also serve to contribute to the differing experience of depression in males and females. Through their socialisation, females learn that they are responsible for their failures but less responsible for successes (Nolen-Hoeksema, 1987). She found that women were more likely to make internal, stable, global attributions for their failures and external, unstable, specific attributions for their successes. This depressive attributional style was proposed to increase their vulnerability to depression through learned helplessness and the development of low self-esteem.

Patterns of development due to the socialisation of children towards traditional sex-roles appear to preferentially predispose females to develop depression. The evidence discussed above suggests that women tend to adopt a dependent role and take responsibility for their own failures, while men are socialised into a independent, problem-solving role which, it has been proposed, seems to protect them from the development of depression. When this possible predisposition to depression is considered in the context of the suggested higher levels of financial, economic stressors for women, Brems (1995) suggests that these psychosocial factors provide possibly the strongest evidence to account for the preponderance of depression in women. Certainly, this pattern corresponds to a stress-diathesis model of depression as proposed by several theorists (e.g. Beck, 1967).

1.4 Theories of depression

1.4.1 Psychodynamic theory

The psychodynamic theories of depression focuses on a number of features which lead to the development and maintenance of the disorder. Contrasting depression with a bereavement reaction, Freud (1917) proposed that depressive symptoms are comparable with grief as both were seen to develop following the loss of an "object", which can be a person. However, depression differs as it was proposed that low self-esteem develops in the latter. Freud suggested that with this, anger or disappointment is directed inwards leading to self-criticism. In addition to this model of the precipitating and maintaining factors in the development of depression, Freud theorised that certain early experiences could predispose individuals to depression. He proposed that an early loss of a mother or the mother's love would lead to the child internalising the loss and directing the anger inwards at their own ego. This was seen to result in a pattern of behaviour which would predispose the individual to depressive experiences.

Klein (1934) did not agree with the theory that the predisposition came from a traumatic experience of loss at an early age. Instead, she suggested that an individual may become vulnerable to experiencing depression depending on the nature of the mother-child relationship and the quality of attachment. It was theorised that a vulnerability would result if the mother did not encourage the child to have a sense of being loved or feeling secure. This would lead to ambivalence towards the important objects in the child's life at the time and also in the future which Klein believed

resulted in an increased likelihood to develop depression. Thus, there is the suggestion that people develop a vulnerability to the disorder.

This concept of vulnerability to depression was also apparent in Bowlby's (1978, 1981) theory of attachment. He suggested that an individual may become vulnerable to the development of depression if, as a child, there was a failure to form a secure attachment to their parents. He also proposed that an unstable or inadequate bond with the parents can make the individual vulnerable to many psychiatric disorders, dependent on the specific nature of the disruption of attachment in childhood. In the case of depression, Bowlby suggested that the vulnerability develops from an actual separation from the parent or as a result of the parent being unresponsive or inaccessible emotionally.

Overall, the psychodynamic theories of depression propose the involvement of a number of factors which can lead to the development of the disorder. Depression is likened to a bereavement reaction, however the sense of loss is accompanied by feelings of low self-esteem, guilt and self-criticism with anger being directed inward. Psychodynamic theorists also postulate that individuals develop a vulnerability to depression if early development of parental bonds are disrupted.

1.4.2 Behaviour theory

Central to behaviour theories is the concept of depression as resulting from the break-down of established patterns of behaviour that had been reinforced by the individual's environment (Skinner, 1953). Lewinsohn and collegues (Lewinsohn, 1974; and

Lewinsohn, Youngren & Grosscup, 1979) suggested that a reduction of social reinforcement from significant others in the depressed individual's life and/ or a high rate of adverse experiences could lead to a reduction in behaviour and consequently depression. They proposed a number of factors which could cause the low rate of reinforcement and subsequent depression. Firstly, the individual may have deficits in social skills that restrict both the ability to protect against adverse experiences and also to form further reinforcing relationships. Also, the individual may have less opportunity to gain positive reinforcement through an impoverished environment, such as lack of social support or loss, or an excess of aversive experiences. Finally, they suggested that an individual's lack of the capacity to enjoy positive experiences and a tendency to focus on negative experiences may result in the development of depression.

Coyne (1976) furthered this effect of social interactions on the development and maintenance of depressive behaviours to include the negative responses of others. While the initial reaction of significant others may be concern, ultimately the depressed individual's behaviour is viewed as aversive as it becomes increasingly demanding, and therefore leads to feelings of anger and resentment from others. Further to this, guilt on the part of these significant others leads to the suppression of this hostility, thus the support becomes ambiguous and false. In response to this, the depressed individual is seen to become more symptomatic to elicit more support which serves to make the interactions more aversive to others.

More recently, Lewinsohn, Hoberman, Teri & Hautzinger (1985) proposed a model of depression which highlights environmental factors as precipitants of behavioural, cognitive and affective change; and cognitive factors acting to moderate this change. In this model, established behaviour is interrupted by antecedent risk factors such as stressful life events or day-to-day stresses. As daily functioning is affected, there is a reduction in positive reinforcement and/ or increased rate of aversive experiences through, for example, disruption of relationships. An increased self-awareness results from this change and in turn, symptoms of depression increase as the individual focuses on their perceived failures. Importantly in this model, Lewinsohn *et al.* (1985) included the possible influence of stable personality traits on the development of depression. They classed these characteristics as "vulnerabilities" which increase the likelihood of depression developing, and "immunities" which serve to protect the individual from the development of depression. They stated that possible vulnerabilities could include being female (see sections 1.2.3 and 1.3) and low self-esteem, while immunities may be effective coping strategies or access to a confidant.

Behavioural models of depression have increased in complexity from their stimulus-response beginnings to include the influence of personality and environment on the development of the disorder. Therefore, again vulnerability to depression has become an important part of the behavioural model.

1.4.3 Cognitive theory

Beck (1967, 1976, 1983) and Beck, Shaw, Rush & Emery (1979) formulated a cognitive model of depression with three main elements: cognitive content (the

cognitive triad and negative automatic thoughts), cognitive processes (thinking errors or cognitive distortions), and latent maladaptive beliefs or schemas. The cognitive triad is made up of an individual's distorted view of himself, his experiences and the future, on development of depressive symptoms. The depressed individual views themselves as defective or inadequate and tends to idiosyncratically interpret adverse experiences as being a result of some perceived personal failing. Due to these perceived deficits, the individual tends to be very self-critical and may underestimate levels of competency (negative view of self). Regarding their experiences, the depressive patient sees their world as being particularly harsh and demanding, thus making the achievement of goals problematic or impossible (negative view of world). There is a tendency to view the environment in a negative fashion, even in the light of evidence to the contrary. Finally, the individual tends to anticipate current difficulties continuing indefinitely and sees any attempts to change as resulting in failure (negative view of future).

The second aspect of Beck's model is that of faulty cognitive processes called thinking errors or cognitive distortions. These were initially identified as arbitrary inference, selective abstraction, overgeneralisation, and magnification/ minimisation (Beck, 1963) with the addition of personalisation and dichotomous thinking in a later revision of the theory (Beck *et al.*,1979).

Beck proposed the concept of "latent maladaptive schemas", or underlying dysfunctional beliefs, that lie dormant until they are activated by specific situations or experiences. Therefore, the role of the individual's environment is acknowledged as

affecting the development of depression. These schemas are seen to be stable factors which act to make individuals vulnerable to developing depression but a trigger is necessary in addition to this. Thus Beck has proposed a stress-diathesis model.

Beck's cognitive model is able to account for the various signs and symptoms of depression. For instance, physical symptoms such as low energy and apathy can be understood as resulting from a lack of belief in one's own abilities to achieve. Suicidal ideation is seen to be consequence of an extreme desire to escape from the perceived harsh environment and difficulties that apparently cannot be resolved due to personal failings.

Based on a behavioural theory, the reformulated helplessness model of depression (Abramson, Seligman & Teasdale, 1978) accounts for the development and maintenance of depressive symptomatology in terms of attributional processes. While the original theory proposed that the experience of negative events was sufficient to elicit a depressive experience (Seligman, 1975), this model states that the event must also be perceived as being outside the individual's control. Depressive individuals see negative events as being caused by *internal* factors, that is that they see themselves as somehow responsible; that the experience will recur in other areas of their lives, thus that it will cause *global* difficulties; and that the problem will be *stable* and persist over time. This tendency to make internal, global, stable attributions to negative experiences, a depressogenic attributional style, is seen to result in the individual feeling "helpless". They feel they cannot control the outcome of events in the present or the future and thus depression can develop. Also, a tendency towards low self-

esteem can occur through the process of self-blame associated with internal attributions for negative outcomes.

A further revision of the theory lead to the hopelessness theory of depression (Abramson, Metalsky & Alloy, 1989) which proposed a subtype of depression called "hopelessness depression". This theory includes the effect of inferences about the consequences of negative experiences such that the hopeless individual believes positive, desirable outcomes will not occur while undesirable outcomes will occur and that this is out with their control.

In both helplessness and hopelessness theories, vulnerability to depressogenic attributional styles is proposed. Early experiences are seen to effect the development of these attributional styles. As with Beck's model, these are also stress-diathesis models in that depression results from the interaction of a predisposition to the disorder with a triggering negative event. Thus the role of vulnerability is seen to be important in cognitive theories.

1.5 Psychological vulnerability

A common theme of the current theories of depression is an acknowledgement of the role of psychological vulnerability. From the above review, this concept has been identified by psychodynamic (e.g. Klein, 1934), behavioural (e.g. Lewinsohn *et al.*, 1985) and cognitive (e.g. Beck, 1983) theories.

Psychological vulnerability can be categorised as a trait. Studies by Hollon and colleagues (Hollon, 1992; Hollon & Cobb, 1993) suggest that a vulnerability can predispose a person to a disorder but it does not act as a trigger. This contrasts with the disorder itself, which is seen as a state. While the disorder can remit and recur, the underlying vulnerability factor remains intact. However, this does not necessarily mean that the vulnerability is a permanent feature. Ingram *et al.* (1998) point out that psychological approaches consider vulnerability emerging from "dysfunctional learning", thus they can be influenced by new learning and hence are amenable to change. Psychological vulnerability can be seen as relatively stable rather than permanent, such that it is resistant to change but change is not impossible. Other characteristics of psychological vulnerability are that it is endogenous, that is it comes from within the person, and that it is activated by "stress".

1.6 Dependency and self-criticism

Blatt's (1974) model of depression identified two main types of depression: anaclitic (dependent) and introjective (self-critical) which were seen to develop from dependent and self-critical personality types respectively. Similar distinctions in personality traits or stable belief patterns have been identified by a number of theorists, among them Beck (1983) who proposed the sociotrophy-autonomy distinction, and Arieti & Bemporad (1980) who discussed "dominant other" and "dominant goal", concepts similar to dependency and self-criticism. While there are differences between the descriptions of the development of each of these concepts depending on the theoretical position behind them, the concepts are essentially very alike. These descriptions can be identified in both the psychodynamic and the cognitive-

behavioural literature. While most theorists have proposed these concepts as vulnerabilities to depression, Blatt (1974) did take this further by linking the vulnerabilities to resulting related subtypes of depression. These subtypes are not based on differences in type or severity of symptoms but on "the nature of the experiences that seem of importance to depressed individuals" (Blatt, 1974) and their resulting influence on the individuals self-concept. Thus, while both dependent and self-critical individuals could develop comparable levels of depression, the nature of the beliefs and concerns may differ.

1.6.1 Dependency

Dependency, otherwise described as sociotropy (Beck, 1983), dominant other (Arieti & Bemporad, 1980) and interpersonal dependency (Hirschfeld, Klerman, Gough, Barrett, Korchin, & Chodoff, 1977), manifests as feelings of loneliness, helplessness and fears of abandonment. Dependent individuals crave acceptance by others and long to be loved, cared for and protected, thus they need to keep themselves in close, supportive relationships. The maintenance of their self-esteem and well-being is reliant on meeting perceived interpersonal needs and keeping valued relationships going. They fear hurting others and so there can be difficulties with expressing anger for fear of losing an important relationship. Also, due to the excessive nature of the dependency, the individuals needs are unlikely to be met, thus they may go to great, even desperate, lengths to meet their need for support and there is often a denial of dependency. Depression develops due to the loss felt by the individual if their relationships break down or no longer fulfils the needs outlined.

1.6.2 Self-criticism

Self-criticism is seen as a slightly broader term which seems to encompass both a need to achieve and to be autonomous. This concept has been described in many forms as achievement-autonomous (Nietzel & Harris, 1990), autonomy (Beck, 1983), self-worth (Swallow & Kuiper, 1988) and dominant goal personalities (Arieti & Bemporad, 1980). Self-critical individuals are characterised by a sense of unworthiness, inferiority, failure and guilt. They are highly driven individuals who set their goals and standards high and these goals must be achieved in order to maintain their self-esteem. While they are not dependent on other people, they do rely on them as a source of approval. They evaluate themselves very harshly and constantly strive for perfection in all areas of their lives, thus they are very competitive, both intra- and inter-personally. Autonomous individuals may actually reach high levels of achievement, however the feelings of self-worth associated with this tend to be short-lived. When this constant striving to reach their lofty goals is unsuccessful, self-criticism sets in, as does guilt, feelings of weakness and inadequacy, and ultimately depression.

1.6.3 Development of self-criticism and dependency

While the definitions of self-criticism and dependency are very similar across the theoretical stand-points, models proposing the development of these structures is somewhat different. Sociotropy and autonomy, as proposed by Beck (1983) are seen as subtypes of the cognitive structures developed from an early age. The cognitive model, as discussed above, suggests that there are three levels of cognitions that can lead to depression: on the surface are the negative automatic thoughts, underlying

these are irrational beliefs, and at the deepest level are the depressive schema. The schema are developed from problematic early relationships, generally seen to be with parents. Sociotropy and autonomy are seen to be stable clusters of schemas which represent stable beliefs about ourselves and others, and therefore affect how we develop further interpersonal relationships (Clark & Beck 1999). Beck (1983) suggested that the autonomous personality is more likely to be seen in males, while the sociotropic, dependent personality is seen more in women. Although he does not state why this pattern emerges, it would seem likely that it results from gender-related differences in early socialisation (see section 1.3.3).

Blatt (1974), on the other hand, proposes a developmental model from an object relations perspective. Object relations develop out of the relationship between the mother (the object) and child, and these then serve to organise all other experiences of relationships. Dependency would result from a deprivation of the necessary need gratification in early childhood through abandonment and neglect. Thus, they engage in exaggerated attempts to achieve a gratifying relationship and the development of the individual's own identity is neglected. Self-criticism develops from a more hostile, demanding parent-child relationship. As the child tries to develop a positive sense of self in this environment, the development of interpersonal relationships are neglected. Blatt suggested that the dependent individuals would be inclined to use denial as a defence against the possible loss of the object while the self-critic identifies with the aggressor and tends to take responsibility and blame. Blatt (1974) sees anaclitic, or dependent, vulnerabilities as developing earlier than introjective, or self-critical, vulnerabilities. Dependency comes from a disturbance of bonding with the mother,

and self-criticism develops later at the time of superego formation. Both types of depression are related to a desire for contact with the object.

1.7 Measurement of self-criticism and dependency

A number of questionnaires have been developed which aim to measure dependency and self-criticism. These will be outlined briefly here prior to the discussion of the literature which has made use of them.

1.7.1 Depressive Experiences Questionnaire (DEQ)

Numerous studies have been conducted since the development of the Depressive Experiences Questionnaire, or DEQ (Blatt, D'Afflitti & Quinlan, 1976a). This 66-item, self-report scale measures dependency and self-criticism, as defined by Blatt (1974) and also includes a third factor, Efficacy. Efficacy involves a sense of self-confidence, and positive goal-oriented strivings and feelings of accomplishment (Blatt, D'Afflitti & Quinlan, 1976b). In the same study, this factor was found to be negatively correlated with depression as measured by the Wessman-Rick Mood Scale (Wessman, Ricks & Tyl, 1960). Due to the nature of the research, which has tended to focus on the vulnerability factors proposed in Blatt's model, the Efficacy scale has been largely unutilised and the DEQ has primarily been used as a measurement for dependency and self-criticism. Since its development, other measures have emerged which also appeared to measure these two dimensions. See the Methods section 2.4.3 for further details on the DEQ.

1.7.2 Sociotropy-Autonomy Scale (SAS)

Beck, Epstein, Harrison & Emery (1983) developed the Sociotropy-Autonomy Scale (SAS) to measure the two subtypes of personality he identified as vulnerability factors for depression, Sociotropy and Autonomy. The SAS consists of two 30-item self-report scales - Sociotropy and Autonomy - and each of these can be divided into three subscales. Sociotropy subscales are Concern About Disapproval, Attachment, and Pleasing Others; Autonomy subscales are Individualistic Achievement, Freedom From Control by Others and Preference for Solitude. While the Sociotropy scale corresponds to the Dependency factor on the DEQ, Autonomy does not correlate well with Self-criticism (Rude & Burnham, 1993).

1.7.3 Interpersonal Dependency Inventory (IDI)

The Interpersonal Dependency Inventory (IDI), developed by Hirschfeld, Klerman, Gough, Barrett, Korchin & Chodoff (1977) is a 48-item self-report inventory with three sub-scales - Emotional Reliance on Another Person, Lack of Self-confidence, and Assertion of Autonomy - and as the title of the inventory suggests, this is primarily a measure of dependency. Franche & Dobson (1992) cited an unpublished paper by Pincus (1987) which suggested that Emotional Reliance on Another Person maps on to dependency, and Assertion of Autonomy corresponds to Efficacy. The Lack of Self-confidence subscale reflects a need for help in taking initiative, making decisions and socialising.

1.7.4 Dysfunctional Attitudes Scale (DAS)

The Dysfunctional Attitudes Scale (DAS) was originally designed by Weissman and Beck (1978) to measure the beliefs or attitudes that predisposed an individual to depression. The original version of the DAS has 100-items, however Weissman (1979) developed two parallel versions, DAS-A and DAS-B, which consisted of only 40-items. The DAS-A is commonly used in research but there is considerable evidence that these two short forms are not in fact equivalent (Oliver & Baumgart, 1985; Power, Katz, McGuffin, Duggan, Lam, & Beck, 1994). There is some dispute over the factors within each of these versions. Cane, Olinger, Gotlib, & Kuiper (1985) suggested two factors on the DAS-A which were labelled "approval by others" and "performance evaluation". Power *et al.* (1994) found three factors occur in both the DAS-A and DAS-B forms: Achievement, Dependency, and Self-control, although they did not find them to correlate well across the two versions. Further to this study, Power *et al.* (1994) developed a 24-item version of the DAS with the three subscales mentioned above and found that the new DAS-24 actually correlated more highly with the two 40-item versions than they did with each other. While dependency is clearly assessed by this measure, the Achievement subscale is conceptually similar to autonomy and self-criticism.

1.8 Studies of dependency and self-criticism

The research that has been published on dependency and self-criticism has generally sought to answer the assumptions made by theorists about the nature of these concepts, that is, to confirm if they are stable factors and that they act as vulnerabilities to depression. To test if they are stable, comparisons have generally

been made between currently depressed and recovered depressed groups. However some longitudinal studies have been done which measure dependency and self-criticism in depressed patients prior to treatment and then follow-up participants once they no longer reach the criteria for a clinical diagnosis of depression. If they are stable factors, there should be no difference in scores on measures of dependency and self-criticism between those who are depressed and those who have recovered from their depression. To investigate if the factors are vulnerabilities, it needs to be established that dependency and self-criticism are not present in those who have never been depressed, therefore the use of a control group is necessary. An alternative methodology which could be utilised to assess this hypothesis is based on the fact that, as vulnerabilities, the identification of these factors in currently non-depressed individuals should predict the likely development of depression. Thus, non-depressed individuals found to have high levels of dependency and self-criticism would be reassessed to see if they have developed depression. It should also be established that these factors are specific to depression. Thus, it would be necessary to assess that other disorders do not develop as a result of dependency and self-criticism. As stated by Ingram *et al.* (1998), as vulnerability factors, they are assumed to be activated by stressful life events, thus much research has also been completed on measuring the effects of stressful experiences on levels of dependency and self-criticism.

A number of studies will now be discussed which have been designed to test the hypotheses that dependency and self-criticism are stable vulnerabilities to depression.

1.8.1 Dependency and self-criticism as valid distinctions for the study of depression

Following the proposal of the theoretical model of self-criticism and dependency as distinct subtypes of depression, and the subsequent development of the Depressive Experiences Questionnaire (DEQ), Blatt *et al.* (1982) investigated the utility of these concepts in differentiating typologies of depression in a clinical sample. They administered the DEQ, the Zung Depression Scale (Zung, 1972), and a version of Osgood, Suci & Tannenbaum (1957) semantic differential to two clinical groups, in-patients and out-patients, and two non-clinical groups, college students and adults in the community. Further to this, the clinical groups completed the Beck Depression Inventory (BDI) (Beck, 1961). Their results indicated that it was possible to differentiate types of depression in a clinical sample by the dimensions of self-criticism and dependency. They found that measures of depression such as the Zung and BDI were good measures of self-criticism, however, dependency was not so clearly identified by them. They suggested that dependency may be a less frequently diagnosed subtype of depression that could be overlooked by standard assessments. They also identified a class of depression which exhibited a "mixed" presentation of both dependent and self-critical dimensions. It was proposed that individuals with both dimensions may result in a more severe depression as the combination of these two factors leads to a "unique situation especially difficult to resolve". This would arise from features of dependency such as feelings of failure and worthlessness, coming into conflict with the self-critical characteristic of striving for achievement to overcome such feelings. They suggested that this striving can "interfere with the gratification of dependent longings" (Blatt *et al.*, 1982).

1.8.2 Dependency and self-criticism as vulnerability factors to depression

In order to assess whether or not dependency and self-criticism do act as vulnerabilities to depression, it is necessary to establish that higher levels of these factors will predict the development of depression. Further to this, it is necessary to analyse if high levels of dependency and self-criticism are specific to depression alone.

1.8.2.1 Predicting depression

Zuroff, Igreja & Mongrain (1990) investigated the ability of the DAS and the Dependency and Self-criticism scales of the DEQ to predict depressive mood states in a non-clinical sample of female college students. In this longitudinal study, the DAS, DEQ and BDI were administered initially and again 12 months later. In addition, participants were asked to rate the worst period of dysphoria they had experienced within those 12 months using a modified retrospective version of the BDI and on measures of anaclitic and introjective state depression in the form of adjective ratings. Adjectives to be rated were either anaclitic, e.g. neglected, unwanted, unloved; or introjective, e.g. blameworthy, disgusted with self, inferior. They found that the DAS and the Dependency and Self-criticism scales on the DEQ were highly stable over the 12-month period. The DAS significantly predicted the BDI score for the worst period, Dependency at initial testing predicted worst period anaclitic state depression and Self-criticism predicted worst period introjective state depression. This suggests that the DAS is more effective at predicting depression while the DEQ was found to effectively predict the nature of the depressive mood state.

1.8.2.2 Diagnostic specificity of dependency and self-criticism

Moore & Blackburn (1994) acknowledged that while sociotropy, as measured by the SAS, had been reported to be associated with depressive symptoms (Nietzel & Harris, 1990), the specificity to depression was still in question. They suggested that it may be that this association reflects a vulnerability to general psychological distress rather than depression as such. Therefore, they investigated the relationship of sociotropy and autonomy to depression, and also anxiety, in a clinical population. Their findings suggested that only sociotropy was significantly associated with depression, as measured by the BDI, but it was also found to be associated with anxiety, as measure by the State-Trait Anxiety Inventory (STAI-S). The correlation with depression remained significant when anxiety was controlled for, however the correlation with anxiety was no longer significant when BDI score was partialed out. Therefore, sociotropy was found to be specific to self-rated depression, while autonomy was not.

Bagby *et al.* (1992) also investigated the specificity of dependency and self-criticism for depression. They compared the levels of DEQ personality dimensions in two clinical groups: outpatients diagnosed with (1) panic disorder with agoraphobia, and (2) non-psychotic, unipolar major depression. Their results showed that levels of dependency were similar for both the panic disordered and the depressed individuals, whereas self-criticism was greater in the depressed patients. This suggests that while dependency may be a vulnerability factor to depression, it may also act as a vulnerability to other disorders, while self-criticism may be more specific to depression. This certainly calls into question the specificity of dependency and self-criticism as vulnerabilities to depression.

Bagby *et al.* (1992) reported that these findings are contrary to results from studies using measures such as the DAS and the SAS which suggest that dependency/ sociotropy scales produce a larger effect size in association with depression. However, this difference may be due to the discrepancies between the measurements as, while dependency scales are similar, the self-criticism scale on the DEQ has not been found to be equivalent to those in other measures. Therefore, the evidence for the specificity of dependency and self-criticism to depression is not very conclusive.

1.8.3 The stability of dependency and self-criticism

Moore & Blackburn (1994) looked at the stability of sociotropy and autonomy as measured by the SAS in their longitudinal study of depressed patients before and after treatment. They found that there was a significant decrease in depression, as measured by the BDI and the Hamilton Rating Scale for Depression (HRSD), while both sociotropy and autonomy remained stable over time. However, they acknowledged that this finding may be misleading as not all patients were fully recovered. Thus, by reanalysing the data using only those who were recovered (the criteria for "recovery" taken as a score of eight or less on the HRSD) they found that sociotropy scores were significantly lower following successful treatment while autonomy was found to remain stable. They did note that even though the scores for sociotropy decreased, they still remained higher than normative scores for the SAS. Therefore, they concluded that there was good evidence that sociotropy, to a certain extent, and autonomy were relatively stable characteristics in line with cognitive theory. However, as discussed above, autonomy was found to have less association with depression than sociotropy, thus while autonomy may remain relatively stable, it was not found to be a

good marker for vulnerability to depression. Further, while sociotropy remained higher than normative data, it was still clearly affected by mood state.

Franche & Dobson (1992) investigated the stability of dependency and self-criticism using the DEQ with a clinical sample. They compared scores on the subscales of the DEQ and the IDI across three groups: currently depressed patients, recovered depressed, and never depressed control participants. Results suggest that on both the DEQ and IDI, levels of dependency and self-criticism were significantly higher in the currently depressed and the recovered depressed groups than in the normal controls. No significant group effects were found on the Efficacy and Assertion of Autonomy subscales on the DEQ and IDI respectively. The researchers reported that these findings, which provided evidence for dependency and self-criticism as stable vulnerability factors to depression, replicated the previous research using the IDI.

Bagby *et al.* (1994) conducted a longitudinal study comparing currently and recovered depressed participants with normal controls on scores on the DEQ subscales. Outpatients meeting the criteria for major depressive disorder or dysthmia were recruited and assessed for levels of self-criticism and dependency using the DEQ pre- and post-treatment with anti-depressants. Comparisons were then made between those who had recovered from their depression and those who were still clinically depressed following intervention with the control group. They found that the control group was less self-critical and dependent than the depressed group and while each of the groups exhibited greater levels of self-criticism at initial assessment than at follow-up, the recovered patients were still significantly more self-critical and dependent than

the control group at follow-up. These findings suggest that dependency may be stable while self-criticism seemed to be affected by mood. However, as scores on both factors remained higher than the control group when individuals were recovered, it seems that even when not in a depressed state there is a tendency towards this pattern of thinking. These higher levels of dependency and self-criticism in recovered individuals may represent a vulnerability. Therefore, their results were fairly consistent with Blatt's (1974) model and Franche & Dobson's (1992) findings.

Klein *et al.* (1988) used a female clinical population to investigate the nature of self-criticism and dependency in depression. The DEQ was used to measure these dimensions in a sample of female outpatients with a diagnosis of major depression when currently depressed and then again at six-month follow-up. Comparing the currently depressed patients with a small control group of never depressed females, they confirmed Blatt *et al.*'s (1982) findings that levels of self-criticism and dependency were significantly higher in the currently depressed group. Further to this, because they re-assessed patients at follow-up, they were able to compare changes in scores on the DEQ of those who were seen to have recovered with those who were still suffering from depression. This comparison was done to control for the effects of a retest assessment and the passage of time. Dependency, as measured by the DEQ, in particular was strongly influenced by mood state. The dependency scores of depressed patients who had recovered were found to have declined significantly from initial testing to follow-up, while the group who were still depressed exhibited a small increase in their dependency scores. This pattern was similar on the self-criticism scale with the recovered depressed group showing a significant decline in their scores on

this subscale and the non-recovered group exhibiting just a small decline between initial assessment and the follow-up. Their results suggested that both self-criticism and dependency were affected by mood and that they were not the stable characteristics proposed by Blatt (1974). However, it was not clear if the recovered individuals' scores on DEQ subscales had declined to the level of the never depressed group as this control group was only used in the comparison with the depressed group prior to treatment.

The conflicting results could be due to a number of factors. There were many differences in the methodologies of these studies that could account for this. Criteria for recruitment to the recovered depressive groups varied. Moore & Blackburn (1994) stated that the follow-up assessment was completed after a 16 week treatment programme but they did not specify a length of recovery time. Klein *et al.* (1988) reassessed the depressed patients at a six-month follow-up before assigning participants to either the non-recovered or recovered groups in their longitudinal study. While this was a considerable time delay before reassessing, again it was not clear how long the participants had been free from a diagnosis of major depression. Bagby *et al.* (1994) reassessed a group of clinically depressed patients following treatment to assign to either the recovered or non-recovered groups 12 weeks after beginning treatment. Again, the researchers did not record how long the patients had been assessed to be recovered. The recovered depressed group studied by Franche & Dobson (1992) were recruited if they had been judged to be free from a diagnosis of depression for at least a month prior to taking part. Bagby *et al.* (1994) suggested

that the discrepancies in these results may be due to the differences in length of time that participants were seen to be recovered from depression.

It may be that in the latter two studies, there were still residual symptoms of depression present and this resulted in the higher levels of self-criticism and dependency. Franche & Dobson (1992) had assessed their recovered group using the Beck Depression Inventory and excluded all "recovered" depressives with a score of more than 15. Bagby *et al.* (1994) only included those seen to have recovered from depression if their score on the Hamilton Rating Scale for Depression had reduced by at least 50 per cent and that this score was below 10. In both cases, this was done in order to rule out the possibility of symptoms of depression remaining, therefore, this argument may not be justified. However, according to the criteria reported by Frank, Prien, Jarrett, Keller, Kupfer, Lavori, Rush & Weissman (1991) in their attempt to provide more consistency in the definitions of recovery and remission, a score of less than or equal to eight on the BDI and less than or equal to seven on the HRSD is necessary to be considered asymptomatic. As both studies included individual's with scores above this level, they may still have mild symptomatology which may have affected their results.

Another possible explanation for the discrepancies may be that there are gender differences in the presentation of dependency and self-criticism. Klein *et al.* (1988) used an entirely female population to carry out their research, while both Bagby *et al.* (1994) and Franche & Dobson (1992) used mixed sex groups. Bagby *et al.* (1994) noted that it was not possible to compare male and female results in their study due to

the small number of non-recovered patients and control participants. Therefore, it is possible that Klein *et al.* (1988) did not disprove Blatt's proposed model of self-criticism and dependency as stable vulnerability factors as such, but in fact they highlighted a possible gender difference.

1.8.4 Mood-state hypothesis

Persons & Miranda (1992) proposed a further explanation for the discrepancies found in the studies of the stability of vulnerability factors to depression. Barnett & Gotlib (1988) reviewed the literature studying levels of dysfunctional attitudes before and after treatment with anti-depressants. They found that only one study out of the six reviewed showed evidence of stable DAS scores (Dobson & Shaw, 1986). The evidence suggesting that underlying dysfunctional beliefs (e.g. Beck 1967, 1976) fluctuate with mood state has been taken as an indication that they are not vulnerability factors but are actually concomitants of depression. Persons & Miranda (1992) suggest that this assumption may be premature. Their mood-state hypothesis is based on Beck's cognitive diathesis-stress model as it states that underlying cognitions are latent and only activated by a stressful event. They suggest that depression in this case could be seen as the activating event for the problematic beliefs. Further to this, they propose that these beliefs are only reportable, and therefore measurable, when activated. This would then account for the results that show that recovered depressives do not consistently exhibit the elevated levels of self-criticism and dependency observed in the currently depressed groups.

This hypothesis has been supported by experimental evidence. Miranda & Persons (1988) compared the scores on the DAS before and after inducing either a positive or negative mood in a non-depressed, female sample. They found a significant decrease in DAS score with positive mood induction and an increase in DAS score with negative mood induction, although this later finding was not statistically significant. They also found that individuals who had been previously depressed gained higher scores on the DAS as compared to those who had never been depressed, but only when a negative mood state had been induced.

In a further study, Miranda, Persons & Byers (1990) extended their findings to include male participants and they also utilised a clinical population. Previously depressed individuals were found to have elevated levels of dysfunctional attitudes if they were in a negative mood at the time of testing, while never depressed individuals did not have elevated dysfunctional attitudes even when in a negative mood state (the negative mood states were not induced). The results showed that the mood-state dependent effect occurred with spontaneous, as well as induced, changes in mood. In the second part of this study, they found that individuals who had never been depressed scored similarly regardless of mood state, whereas those with a history of depression scored higher if they were in a negative mood state at the time of testing.

The authors admit that while these studies provide supportive evidence for the proposed mood-state hypothesis, it is not conclusive due to certain limitations of the studies. Methodologically, the data is correlational and the sample numbers were small, therefore drawing conclusions from the data requires caution. Also the data

does not actually disprove the theory that dysfunctional beliefs are concomitant with depression. What it does is support an alternative explanation for results that apparently conflict with cognitive theory.

The importance of the use of priming techniques to activate the latent cognitive structures proposed in theories of depression was also emphasised by Ingram, Bernet & McLaughlin (1994). Their study compared recovered depressed individuals with never depressed individuals on their ability to attend to a story presented in one ear while the other ear was presented with distracter words comprised of both positive and negative stimuli in a modified dichotic listening paradigm. Attention was taken to be a schema-driven process, thus attention alters dependent on the schemas that are activated at the time. Shifts in attention towards the irrelevant stimuli were measured in terms of the errors made in tracking the presented story. They found no difference in performance between the groups in the control condition (no mood induction). However, when a sad mood was induced, the recovered depressed participants made more tracking errors when presented with both positive and negative stimuli than the never depressed group. Regardless of the mood induction condition, there was no difference in performance for the never depressed group. Taking attentional processes as schema-driven, these results seem to suggest that the schemas of "vulnerable" individuals can be affected by mood. However, in this case, the attentional shift was not affected by the nature of the stimuli, therefore the shift seems to be independent of the emotional content of the presented stimuli.

This evidence provides further evidence that activation of cognitions may be necessary as vulnerable and non-vulnerable individuals only exhibit differences in performance when mood activation is utilised. As recommended by Ingram, Miranda & Segal (1998) the use of activating events seems to be of importance in the growing literature of vulnerability studies. Certainly, the evidence seems to suggest that with priming techniques, vulnerability can been identified while without them the evidence is inconsistent.

1.8.5 The interaction of dependency and self-criticism, and life events

As the cognitive models of depression would suggest, the development of depressive symptoms should only occur in the event of both a vulnerability to depression and certain life events interacting. Research into this interaction has provided some evidence in favour of this proposal.

Olinger, Kuiper & Shaw (1987) used the DAS to measure the level of dysfunctional attitudes in a college sample. To assess the experience of life events, they developed a new scale based on the DAS by altering the attitudes therein into life events relating to the attitudes. Therefore, specific attitude-related events were being assessed. In the second part of this study, they used the Life Events Scale to measure the effects of a wider range of issues such as social, financial, and interpersonal concerns. They found that the co-occurrence of dysfunctional attitudes and negative life events did affect the development of depression as predicted by the interactive model. Negative events had little effect on those participants who scored low on vulnerability (i.e. low score on the DAS), however, with a high vulnerability to depression, there was an effect such

that high levels of negative events resulted in a higher score on depression. The authors found this pattern to be evident with both measures of negative life events, therefore both specific attitude-related events and more general life events lead to an increase in depression scores in the vulnerable individuals. The experience of negative life events alone was not shown to result in depression as not all individuals who reported high levels of these life events were depressed.

Zuroff & Mongrain (1987) looked at the nature of the negative life event in relation to the particular vulnerability and this effect on the possible development of depression. They investigated two principles: (1) specificity, which states that specific situations relevant to an individual's personality type will evoke excessive levels of an affective state, and (2) non-specificity, which would predict the activation of the affective state by a wide range of situations. Their study showed that dependent individuals, as measured by the DEQ, were more likely to exhibit a dependent-type depressive symptomatology following a rejection event than controls or self-critical individuals. Thus for dependent individuals, the specificity principle seems to apply. Self-critics, however, displayed more self-critical symptoms than controls following both rejection and failure. Thus, while dependents seem to develop depression following specific rejection events, self-critics will develop depression in response to a variety of negative life stressors.

Using the DEQ, Smith, O'Keeffe & Jenkins (1988) found mixed results for the interaction between life events and dependency and self-criticism. They found that, in a college population, self-critical females with a high frequency of negative life events

had higher scores on the BDI than females without this vulnerability. However, this pattern was not shown for dependent females. In the male sample, dependency interacted with negative life events as predicted but this was not the case for self-critical males. Self-criticism was found to be related to depression regardless of level of life events.

Robins & Block (1988) and Robins (1990) investigated the interaction of life events with sociotropy and autonomy using the SAS. In an undergraduate sample, consistent with the theory, the experience of depressive symptoms was associated with high levels of sociotropy and high frequencies of negative life events. However, this was not true of autonomy which was not found to be related to depression at all.

Most of the literature focused on an individual measure of dependency and self-criticism/ achievement. Rude & Burnham (1993) compared the DEQ, DAS and SAS as measures of vulnerability and their interaction with life events on the development of depression. They found that the dependency scales of the DEQ and SAS, but not the DAS, interacted with congruent life events, but not incongruent life events, such that high levels of dependency and a high frequency of related interpersonal negative events were associated with more depressive symptoms. However, this expected result was not found for the "achievement" vulnerability factor. There was no evidence of an increase in depressive symptoms with the interaction of this vulnerability and either congruent or incongruent life events.

Clearly, the evidence for the interaction between dependency and self-criticism as vulnerability factors to depression and negative life events is somewhat inconsistent in its findings. This may be the result of the diversity in measures used which makes the comparison of the studies problematic. Further to this, the studies have been conducted on non-clinical samples of college students, which means the findings cannot be reliably generalised to a clinical sample or even the general population. Finally, the use of a cross-sectional design in each case means that the weight of the evidence is limited. The prediction of development of depression in the context of vulnerability factors and life events would require a longitudinal design.

1.8.6 Gender differences in dependency and self-criticism

Some of the studies discussed above have raised questions about possible gender differences in the nature of dependency and self-criticism as vulnerability factors for depression. Beck (1983) did suggest that there may be a gender difference present (see section 1.6.3), but this seemed to be an observation rather than a tested hypothesis. The evidence of a gender difference has received some attention in the literature although often this factor has been overlooked with male and female subjects being pooled together without specific investigation. Theories proposing the concepts of dependency and self-criticism as vulnerabilities to depression did not suggest the possibility of gender differences. However, as discussed above, the gender differences apparent in the prevalence rates may result from differences in psychosocial factors of which personality or underlying beliefs are possible contributors.

Rosenfarb, Becker, Khan, & Mintz (1998) compared female unipolar and bipolar patients on levels of self-criticism and dependency. They used a cross-sectional design comparing currently depressed, recovered depressed and a control group of never depressed individuals to evaluate the stability of these factors using the DEQ. Focusing on the results obtained for the unipolar patients, it was found that the currently and recovered depressed females were more self-critical than the control group, suggesting that self-criticism is a stable vulnerability factor to depression. However, dependency was influenced by mood state, that is the currently depressed females were more dependent than the control group but recovered depressed females did not have significantly higher levels of dependency than the female controls. These results conflict with the findings of Bagby *et al.* (1994) and Franche & Dobson (1992) and seem to suggest that dependency is mood-state dependent, however Rosenfarb *et al.* (1998) indicated that this may be due to gender differences.

Comparing these results with those found by Klein *et al.* (1988) on a female population, Rosenfarb *et al.* (1998) suggested that there was agreement despite the fact that the earlier study found both dependency and self-criticism to be influenced by mood. The finding that dependency was state-dependent was replicated and while Rosenfarb *et al.* (1998) found self-criticism to be stable, they reported that Klein *et al.*'s (1988) findings were consistent with this because they had found self-criticism to be *less* influenced by depressed mood than dependency was.

Using a non-clinical sample of young doctors, Brewin & Firth-Cozens (1997) investigated dependency and self-criticism as predictors of depression in their

longitudinal study. The choice of this group of individuals was based on the notion that young doctors are likely to experience a high frequency of life events which could lead to a sense of failure and/ or loss. Therefore, they suggested that measures of these personality factors would be highly appropriate for this sample. A shortened version of the DEQ was used to assess levels of dependency and self-criticism, and depression was measured using the Zung Self-rating Depression Scale and the Symptom Checklist-90 initially and then again after two years and ten years. They found that after two years, both dependency and, more so, self-criticism predicted depression in male doctors, but for the female sample, only self-criticism was found to be a significant predictor. They did not find workload to predict depression. These results would further indicate the presence of gender differences, but also the possibility that the dimension of dependency is of primary relevance in the prediction of depression in males rather than females.

Further supporting evidence for gender differences in the experience of depression, Chevron, Quinlan, & Blatt (1978) found that in a non-clinical sample of college students, females scored higher than men on dependency as measured by the DEQ, and men scored higher on the Self-criticism subscale. Further to this, using a modified version of the Sex-Role Stereotype Questionnaire (Broverman, Broverman, Clarkson, Rosenkrantz & Vogel, 1970), they investigated the interaction of sex-role with the differences in expression of depressive symptoms. They confirmed that the male sample scored significantly higher on the Competency scale and significantly lower on the Warmth-Expressiveness scale than the female sample. Importantly, they found that depression, as measured by the Zung Depression Scale, was greater in individuals

who exhibited a lack of their own sex's positively valued role. Women who rated themselves as low on the warmth-expression scale scored significantly higher on the Zung than the females who scored higher on warmth and expressiveness. Similarly, males who rated themselves as less competent, scored higher on the depression scale than those who rated themselves highly on competency although this was also true of the female sample. Important gender differences were apparent when comparing the effect of score on the Warmth-Expressiveness scale for males and females. A high score for this trait in men correlated with a higher Dependency score on the DEQ, but in women it correlated with lower Self-criticism. Therefore, a tendency towards the more feminine role in men may result in vulnerability to a dependent expression of depression. However, the authors acknowledge that this evidence is correlational and therefore does not provide evidence that incongruence with an accepted sex-role leads to depression. This study suggests that depressed men may be more likely to be dependent individuals as depression may result from incongruence with the expected sex-role stereotype. While self-criticism may be more common feature in men than women in the normal population, this may not serve as a vulnerability factor in men if it conforms to their expected role. Caution should be taken in applying these findings to a clinical sample.

Hirschfeld, Klerman, Clayton, Keller & Andreasen (1984) also investigated the role of gender in the experience of depression. Scores on the IDI were compared for male recovered depressed patients and matched controls against female recovered depressed patients and their controls. They found no difference between the male and female groups, thus their findings did provide evidence for a gender difference. Also,

they found that both the male and female recovered groups scored significantly higher than their matched control groups on the IDI. Therefore, the scores provide support for a possible vulnerability to depression with interpersonal dependency regardless of gender. It seems that great effort was taken by these researchers to ensure that the recovered groups were actually recovered (see section 1.8.3 for discussion of difficulties in definition). While they did not specify their criteria for "full recovery" they reported that the mean time to recovery was 17 weeks following first assessment and that only those who were recovered at a one year follow-up were included in the study. Therefore, the mean period of recovery was substantial in relation to other studies. Overall, this study does not provide support for a gender difference in interpersonal dependency.

The evidence for a gender difference in dependency and/ or self-criticism which could account for the higher prevalence rates in women than in men is inconsistent. Rosenfarb *et al.* (1998) seemed to attribute the discrepancies between their findings and others to a possible gender difference however, the differences may also be explained by the methodological differences described previously in section 1.8.3. Also, the use of non-clinical samples (e.g. Brewin & Firth-Cozens, 1997) and correlational data (e.g. Chevron, Quinlan, & Blatt, 1978) leads to restrictions in the conclusions that can be drawn. While Hirschfeld *et al.* (1984) provided some fairly convincing evidence suggesting that there is no gender difference in interpersonal dependency, there is difficulty in comparing this finding to the other studies because of the difference in measure utilised. Therefore, this discrepancy could be due to

differences in IDI and DEQ, which are not entirely equivalent. It seems that a more rigorous comparison of male and female clinical groups needs to be completed.

1.9 The current study

The purpose of this study is, firstly to further test the hypothesis that dependency and self-criticism are stable, vulnerability factors for depression by comparing levels of dependency and self-criticism in three groups – currently depressed, recovered depressed and never depressed. The hypotheses tested in this study are based on the original proposals made by the theorists, due to the conflicting results of research to date. In order to further the findings of previous research, two alternative measures of dependency, the DEQ Dependency subscale and the DAS-24 Dependency subscale, and self-criticism, the DEQ Self-criticism subscale and the DAS-24 Achievement subscale were used. While these measures seem to be conceptually similar, and are often taken to measure the same traits, few studies have used more than one form of assessment when investigating dependency and self-criticism. The use of these two measures will provide additional weight to the results as many previous studies have utilised only one questionnaire (e.g. Bagby *et al.*, 1994; Moore & Blackburn, 1994; Rosenfarb *et al.*, 1998). In addition, gender differences will be examined on all the subscales of the DEQ and the DAS-24 to investigate reasons for differing results of current studies, as well as to identify possible factors which may provide evidence for the preponderance of depression in females. Again, the use of the two measures will add weight to the results of the current study. The Beck Depression Inventory-Second Edition (BDI-II) was used as a standardised measure of depression in addition to a diagnosis from a Psychiatrist or a Clinical Psychologist. Further to this,

participants completed the Hospital Anxiety and Depression Scale (HAD) primarily to give an indication of anxiety levels in the groups.

1.10 Hypotheses

1.10.1 Stability hypothesis

1a. Depressed and recovered depressed participants will exhibit no significant difference in levels of dependency as measured by the DEQ and the DAS-24;

1b. Depressed and recovered depressed participants will exhibit no significant difference in levels of self-criticism as measured by the DEQ and the DAS-24;

1.10.2 Vulnerability hypothesis

2a. Depressed and recovered depressed participants will exhibit higher levels of dependency than never depressed participants as measured by the DEQ and the DAS-24;

2b. Depressed and recovered depressed participants will exhibit greater levels of self-criticism than never depressed participants as measured by the DEQ and the DAS-24;

1.10.3 Gender difference hypothesis

3a. Male depressed and female depressed participants will exhibit no significant difference in scores on the domains of the DEQ and DAS-24;

3b. Male recovered depressed and female recovered depressed participants will exhibit no significant differences in scores on the domains of the DEQ and DAS-24.

Method

2.1 Design

A between subjects design was chosen due to time constraints. The cross-sectional design was felt to improve the chance of obtaining participants who had recovered from depression.

2.2 Ethical Approval

Ethical approval for this study was granted by the Grampian Research Ethics Committee in February 2000 (see Appendix 1). Individuals agreeing to participate signed a consent form (see Appendix 2) prior to being sent questionnaires.

2.3 Procedure

2.3.1 Identification of participants

Potential participants were identified from several different sources. The currently depressed group was recruited from psychiatry and clinical psychology; the recovered group were exclusively recruited from psychiatry; and for the control group, participants were identified via a GP practice and also friends and family were approached. The decision to recruit recovered depressed participants exclusively from psychiatry was taken to avoid the possible interference of treatment effects. The current study was not attempting to evaluate treatment in the recovered group but to simulate the situation of depression-prone individuals when not depressed. This was

seen to be most accurately achieved with individuals treated with medication whereby their underlying beliefs have not been actively addressed.

2.3.2 Inclusion and exclusion criteria

Table 2.3.2 Inclusion and exclusion criteria

Group	Inclusion criteria	Exclusion criteria
Currently Depressed	1. Current ICD-10 diagnosis of depression 2. BDI-II score of ≥ 18	1. Psychotic symptoms 2. Personality disorder 3. Bipolar disorder 4. Alcohol and/ or drug misuse
Recovered Depressed	1. Previous ICD-10 diagnosis of depression 2. No longer meeting ICD-10 diagnostic criteria for depression 3. BDI-II score of ≤ 14	1. Psychotic symptoms 2. Personality disorder 3. Bipolar disorder 4. Alcohol and/ or drug misuse
Never Depressed	1. No previous history of any psychiatric disorder 2. BDI-II score of ≤ 14	4. Alcohol and/ or drug misuse

The inclusion and exclusion criteria for the current study are presented in Table 2.3.2. While the accepted cut-off for a "minimal" score on the BDI-II is actually less than or equal to 13, this was raised a point to include two recovered depressed and two never depressed participants due to the low numbers of identified participants, particularly in the recovered depressed group.

2.3.3 Pathways to participation

2.3.3.1 Currently depressed and recovered depressed participants

Following identification of potential participants, individuals were invited to take part in the research via two procedures. Some participants were approached by their key therapist when they attended for clinical sessions. They were then given an information sheet (Appendix 3) to read through in their own time and a consent form to return if they chose to take part. Alternatively, potential participants were asked to take part via a standard letter signed by the key therapist and the researcher. An information sheet and consent form were enclosed, the latter to be returned if the individual chose to take part. On receipt of the consent form, the four questionnaires were sent out. All postage was pre-paid to enhance response rates.

2.3.3.2 Never depressed participants

Potential participants were invited to take part via two methods. For those identified by their GP, a standard letter signed by the GP and the researcher inviting the individual to participate was sent with an information sheet and a consent form to return. Alternatively, in the case of friends and family, participants were approached directly by the researcher and given an information sheet and consent form to return if

they chose to take part. Again, on receipt of the consent forms, the four questionnaires were sent out and all postage was pre-paid.

Each individual was given the opportunity to contact the researcher to discuss the project. Several participants made use of this.

2.3.4 The final sample

Results are based on data provided by a total of 51 participants who completed and returned a full set of questionnaires. The currently depressed group (N=25), all in assessment or early stages of treatment by either a Psychiatrist or Clinical Psychologist, comprised 16 females and 9 males. The recovered depressed group (N=10) were all still in contact with psychiatric services and consisted of 7 females and 3 males. These sample numbers for gender within groups mirror the ratio of female to male prevalence rates in the general population, i.e. 2:1. The never depressed group (N=16) consisted of 8 females and 8 males.

2.4 Measures

2.4.1 Beck Depression Inventory-Second Edition (BDI-II)

The BDI-II (Beck, Steer & Brown, 1996) (Appendix 4) is the third and most recent version of the BDI, originally developed by Beck, Ward, Mendelson, Mock & Erbaugh (1961) and subsequently revised by Beck, Rush, Shaw & Emery (1979) (BDI-IA). Unlike the previous revision, substantial changes have been made in the BDI-II. Four items have been dropped and replaced by new ones and many of the

possible options for each item have been reworded. Cut-off scores categorising the severity of depressive symptoms have also been revised.

The BDI-II is a 21-item, self-report measure of the severity of depression suitable for use with individuals aged 13 and over. Each item is scored on a four point scale from 0 to 3 with cut-offs set at 0-13 for "minimal", 14-19 for "mild", 20-28 for "moderate", and 29-63 for "severe" depression. Beck *et al.* (1996) reported internal consistency for the BDI-II with alpha coefficients of .92 for depressed outpatients and .93 for college students and re-test correlation of .93 over approximately one week. Construct validity was also found to be robust with significant positive Pearson correlations with other measures of depression.

2.4.2 Hospital Anxiety and Depression Scale (HAD)

The HAD (Zigmond & Snaith, 1983) (Appendix 5) is a 14-item, self-report measure designed originally to assess levels of anxiety and depression for use in a general hospital outpatient setting. Seven items make up each of the two subscales, anxiety and depression, and each item is scored on a four point scale from 0 to 3. Scores from 0-7 are "non-cases", 8-10 are borderline, and 11-21 identify "cases". Zigmond & Snaith (1983) reported internal consistencies between the items and their relevant subscale with Spearman correlations of between 0.76 and 0.41 for anxiety items and between 0.60 and 0.30 for depression items. They reported the measure to be a valid instrument for measuring depression due to the use of items found to be important in other measures and also significant Spearman correlation between the authors' diagnoses of clients and scores on the HAD of 0.54 for anxiety and 0.79 for

depression. This questionnaire was chosen primarily to provide a measure of anxiety. The Beck Anxiety Inventory (Beck & Steer, 1993) was rejected as a measure due to gender differences in scores reported by the authors.

2.4.3 Depressive Experiences Questionnaire (DEQ)

The DEQ (Blatt, D'Afflitti & Quinlan, 1976a) (Appendix 6) is a 66-item self-report questionnaire designed to measure three experiences of depression - Dependency, Self-criticism and Efficacy - which are not seen to be symptoms of depression (Blatt, D'Afflitti & Quinlan, 1976b). These three factors were yielded from factor analysis of original data collected from a sample of 500 female and 160 male students at Yale University (Blatt *et al.*, 1976b). Each item is rated on a 7-point Likert-type scale from "strongly agree" to "strongly disagree". Subscales scores were calculated using the factor-weighting method outlined by Blatt *et al.* (1976a). Originally, scores for men and women were calculated using separate factor loadings, factor scoring co-efficients, item means and standard deviations as generated from Blatt *et al.*'s (1976b) data set. However, Zuroff Quinlan & Blatt (1990) found a high level of congruence between the male and female factors which they reported as justifying the use of the one scoring system for men and women. Therefore, scores in this study were calculated using the data from Blatt *et al.*'s (1976b) original female sample. Zuroff, Moskowitz, Wielgus, Powers, & Franco (1983) found test-retest reliabilities of 0.81 and 0.75 for Dependency and Self-criticism respectively over a 13-week interval. Data on efficacy was not reported. Zuroff Quinlan & Blatt (1990) reported internal consistencies of the three subscales of the DEQ separately for males and females: for

men, Cronbach's alpha was 0.80, 0.77, and 0.69 on Dependency, Self-criticism and Efficacy respectively; for women they were 0.81, 0.75, and 0.73.

2.4.4 Dysfunctional Attitudes Scale-24 Item (DAS-24)

The Dysfunctional Attitudes Scale-24 Item (DAS-24) (Power *et al.*, 1994) (Appendix 7) was developed as an abbreviated form of the original 100-item DAS (Weismann & Beck, 1978) and the 40-item DAS-A and DAS-B parallel forms (Weismann, 1979). The DAS-24 is a self-report questionnaire which provides an overall score for dysfunctional attitudes. It also contains three subscales - Achievement, Dependency and Self-control – each of which consist of 8 items. Each item is rated from "totally agree" to "totally disagree" on a 7-point Likert-type scale. Power *et al.* (1994)'s analysis of the internal consistencies of the three subscales found Cronbach alpha values of 0.847, 0.737, and 0.681 for Achievement, Dependency and Self-control respectively.

2.5 Data analysis

The Statistical Package for the Social Sciences for Windows (SPSS v9.0) was used to perform statistical analyses on the data. Results are reported at the 0.05 level of significance unless otherwise stated.

An analysis using Spearman's rank order correlation was carried out to test the association between the DEQ and the DAS-24 subscales measuring dependency and self-criticism. The non-parametric Kruskal-Wallis test was used initially to compare the characteristics of the three groups. Following this, Mann-Whitney tests were used

throughout the data analysis to make the comparisons specified in the hypotheses as recommended by Cramer (1998). Non-parametric statistical tests were chosen due to concerns that their parametric equivalents may not have been robust in light of the unequal and small sample sizes. Parametric analyses such as ANOVAs are generally regarded as robust even when the data is skewed or there are unequal variances, i.e. when certain conditions specified for the use of this analysis are violated, when used in the social sciences (Bryman & Cramer, 1999). However, this is not the case when there are also unequal sample sizes (Howell, 1997). Howell suggests that with sample sizes of less than 30, firm conclusions cannot be made about the distribution of the sample. Therefore, as each of the groups in this study are below 30 and the sample sizes are markedly unequal, the more conservative level of analysis was seen to be more appropriate. While the hypotheses tested here propose a direction for the predicted differences between the groups, two-tailed tests rather than one-tailed tests were used in case the proposed directions were inaccurate (Howell, 1997).

Results

3.1 Correlation analysis of the DEQ and the DAS-24

Spearman's rank order correlation was carried out to analyse the correlation between DEQ Dependency, DEQ Self-criticism, DAS-24 Dependency, and DAS-24 Achievement (see Table 1).

Table 1. Correlation matrix for DEQ and DAS-24 subscales

	DEQ Dependency	DEQ Self-criticism	DAS-24 Dependency	DAS-24 Achievement
DEQ Dependency	1.000	.271(NS)	.520**	.409**
DEQ Self-criticism	.271(NS)	1.000	.649**	.715**
DAS-24 Dependency	.520**	.649**	1.000	.756**
DAS-24 Achievement	.409**	.715**	.756**	1.000

*p < .05, **p < .01 (two-tailed)

The analysis revealed that the DEQ and DAS-24 Dependency subscales correlated significantly, as did the DEQ Self-criticism and DAS-24 Achievement subscales. This suggests that there is a strong positive association between the equivalent subscales across measures. However, there were also significant correlations between both Dependency subscales and DAS-24 Achievement. The only non-significant result was between the two DEQ subscales. Thus while the equivalent subscales over the two measures appear to be positively associated, the overlap between the DAS-24 Achievement subscale and both measures of dependency suggests the concepts may not be entirely distinct.

3.2 Characteristics of the sample

There were three groups participating in this research project: currently depressed, recovered depressed, and never depressed. BDI-II and HAD-D scores were compared across groups to confirm that the currently depressed group reported significantly higher levels of symptomatology than the recovered depressed and never depressed groups. BDI-II scores were also analysed to confirm that the recovered depressed and the never depressed groups displayed comparable levels of depressive symptomatology. The HAD-D was used to add further weight to the allocation of participants to the three groups. Level of anxiety, as measured by the HAD-A scores, and age were also compared.

Comparisons on the factors of age, BDI-II, HAD-A and HAD-D using the Kruskal-Wallis showed that while there was no significant difference between the three groups on age (Chi-square = 4.07, d.f. = 2, p = .131), significant differences were found between the groups on BDI-II (Chi-square = 38.76, d.f. = 2, $p < .001$), HAD-A (Chi-square = 34.79, d.f. = 2, $p < .001$) and HAD-D (Chi-square = 37.38, d.f. = 2, $p < .001$).

To investigate the differences between the three groups on the BDI-II, HAD-A and HAD-D, comparisons were carried out using Mann-Whitney tests. Analysis confirmed that the currently depressed group scored significantly higher on the BDI-II than the recovered depressed (U = 0.00, z = -4.57, $p < .001$, two-tailed) and the never depressed (U = 0.00, z = -5.35, $p < .001$, two-tailed) groups. However, the recovered group also scored significantly higher than the never depressed group (U = 40.50, z =

-2.10, $p = .036$, two-tailed). A similar pattern was seen on the HAD-D scores with the currently depressed scoring significantly higher than the recovered group ($U = 0.00$, $z = -4.47$, $p < .001$, two-tailed) and the never depressed group ($U = 0.00$, $z = -5.31$, $p < .001$, two-tailed). However, scores for the recovered and never depressed groups on the HAD-D were not significantly different ($U = 48.5$, $z = -1.69$, $p = .91$, two-tailed). The same pattern of results was found on the HAD-A, with the currently depressed group scoring significantly higher than the recovered depressed group ($U = 19.50$, $z = -3.86$, $p < .001$, two-tailed) and the never depressed group ($U = 7.50$, $z = -5.16$, $p < .001$, two-tailed). Again, the recovered group scored significantly higher than the never depressed group ($U = 24.00$, $z = -3.86$, $p = .003$, two-tailed).

Table 2. Comparison of currently and recovered depressed groups on BDI-II scores, HAD depression scores and HAD anxiety scores.

	Currently depressed (N = 25) Mean Rank	Recovered depressed (N = 10) Mean Rank	*U* value	*z* value	*p* value (two-tailed)
BDI-II score	23.00	5.50	0.00	-4.57	< .001
HAD-D score	22.88	5.80	3.00	-4.47	< .001
HAD-A score	22.22	7.45	19.50	-3.86	< .001

Table 3. Comparison of currently and never depressed groups on BDI-II scores, HAD depression scores and HAD anxiety scores.

	Currently depressed (N = 25) Mean Rank	Never depressed (N = 16) Mean Rank	*U* value	*z* value	*p* value (two-tailed)
BDI-II score	29.00	8.50	0.00	-5.35	< .001
HAD-D score	28.92	8.63	2.00	-5.31	< .001
HAD-A score	28.70	8.97	7.50	-5.16	< .001

Table 4. Comparison of recovered and never depressed groups on BDI-II scores, HAD depression scores and HAD anxiety scores.

	Recovered depressed (N = 10) Mean Rank	Never depressed (N = 16) Mean Rank	*U* value	*z* value	*p* value (two-tailed)
BDI-II score	17.45	11.03	40.50	-2.10	.036
HAD-D score	16.65	11.53	48.50	-1.69	.091
HAD-A score	19.10	10.00	24.00	-2.97	.003

To summarise, the results of the analysis confirm that the difference in score on the BDI-II and HAD-D between the currently depressed and recovered depressed groups was significant, with the depressed group scoring higher. However, the recovered group scored significantly higher than the never depressed group on the BDI-II, thus these groups may not be comparable. Contrary to this, analysis of the scores on the HAD-D suggest that there is no significant difference between the recovered and the never depressed groups on levels of depression. Therefore, while the depressed group clearly exhibit significantly lower mood than the other groups as measured by the

BDI-II, the recovered group may still have residual depressive symptomatology however the analysis was not conclusive. Therefore, if the recovered group do score higher on measures of dependency and self-criticism than the never depressed group, it may be necessary to co-vary out the BDI-II scores in comparisons of these two groups. In terms of anxiety, currently depressed scored significantly higher than the other groups and recovered group scored significantly higher than the never depressed group on the HAD-A.

3.3 Initial comparisons of all three groups on levels of dependency and self-criticism as measured by the DEQ and DAS-24

Comparisons of the three groups using Kruskal-Wallis analyses were completed to investigate if differences between the currently depressed, recovered depressed and never depressed groups on levels of dependency and self-criticism were present. For dependency measures, a significant difference was found between the three groups: DEQ Dependency (Chi-square = 8.20, d.f. = 2, p = .017), and DAS-24 Dependency (Chi-square = 16.18, d.f. = 2, $p < .001$). Significant differences were also found between the three groups on the measures of self-criticism: DEQ Self-criticism (Chi-square = 32.45, d.f. = 2, $p < .001$), and DAS-24 Achievement (Chi-square = 14.03, d.f. = 2, p = .001). As significant differences were found between the groups on each measure, multiple comparisons were made to test the specific hypotheses proposed in section 1.10.

3.4 The stability of dependency and self-criticism as measured by the DEQ and the DAS-24

To test the stability of these factors between groups in terms of depression status, comparisons were made between currently depressed and recovered depressed participants, using the non-parametric Mann-Whitney test for unrelated samples, on levels of Dependency and Self-criticism as measured by subscales of the DEQ and the DAS-24. Scores on the Dependency subscales on the DEQ and DAS-24 were compared separately across groups, as were scores on the Self-criticism subscale of the DEQ and the Achievement subscale of the DAS-24.

3.4.1 Hypothesis 1a: Depressed and recovered depressed participants will exhibit no significant difference in levels of Dependency as measured by the DEQ and DAS-24.

Initial exploratory analysis of the data suggest that on both the DEQ and the DAS-24 Dependency scales the currently depressed group scored higher than the recovered depressed group (Figures 1 and 2).

Figure 1. DEQ Dependency scores

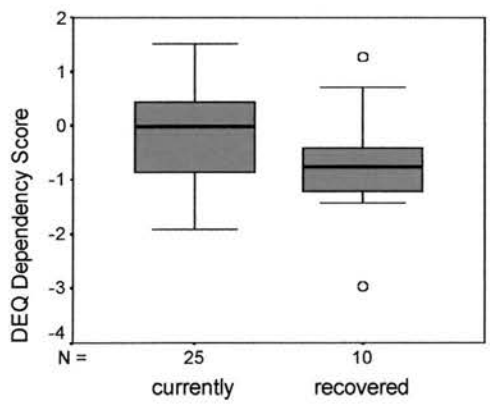
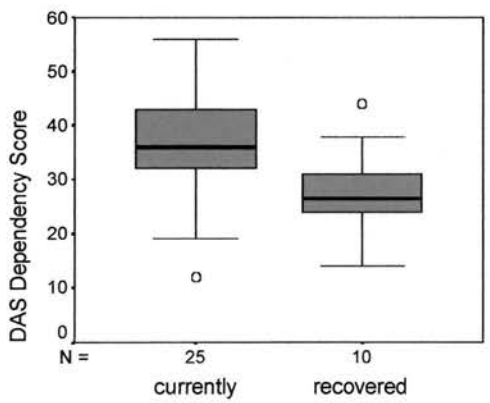


Figure 2. DAS Dependency scores



Comparison between the groups of currently depressed and recovered depressed participants (Table 5) revealed that there was a significant difference between the two groups on the DAS-24 Dependency subscale (U = 52.50, z = -2.65, p = .008, two-tailed), with the currently depressed group scoring significantly higher, but there was no significant difference on the DEQ Dependency subscale (U = 77.00, z = -1.75, p = .08, two-tailed). Hypothesis 1a was only partially upheld by these results.

Table 5. Comparison of currently and recovered depressed groups on DEQ and DAS-24 Dependency scores

	Currently depressed (N = 25) Mean Rank	Recovered depressed (N = 10) Mean Rank	U value	z value	p value (two-tailed)
DEQ Dependency	19.92	13.20	77.00	-1.75	.080
DAS-24 Dependency	20.90	10.75	52.50	-2.65	.008

3.4.2 Hypothesis 1b: Depressed and recovered depressed participants will exhibit no significant difference in levels of Self-criticism as measured by the DEQ and DAS-24.

Figures 3 and 4 show that the currently depressed seem to score higher on both the DEQ Self-criticism scale and the DAS-24 Achievement scale.

Figure 3. DEQ Self-criticism for currently and recovered depressed

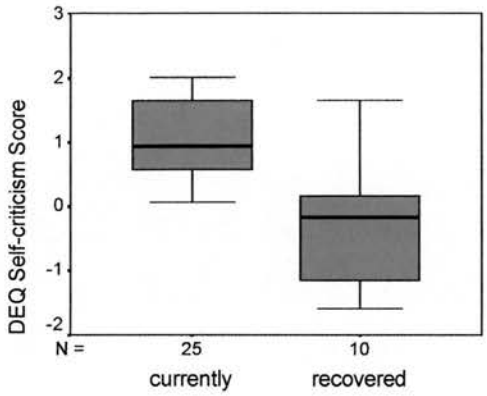
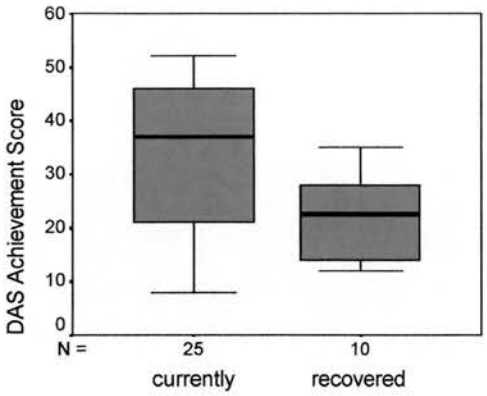


Figure 4. DAS-24 Achievement for currently and recovered depressed



On comparison, significant differences were found between the currently depressed and recovered depressed groups on both subscales (see Table 6): DEQ Self-criticism (U = 34.00, z = -3.32, p = .001, two-tailed), DAS-24 Achievement (U = 62.50, z = -2.28, p = .022, two-tailed). In both cases, the currently depressed group scored significantly higher than the recovered group. Therefore, hypothesis 1b was not upheld by these findings.

Table 6. Comparison of currently and recovered depressed groups on DEQ Self-criticism and DAS-24 Achievement scores

	Currently depressed (N = 25) Mean Rank	Recovered depressed (N = 10) Mean Rank	*U* value	*z* value	*p* value (two-tailed)
DEQ Self-criticism	21.64	8.90	34.00	-3.32	.001
DAS-24 Achievement	20.50	11.75	62.50	-2.28	.022

To summarise the findings for the stability hypotheses, the analyses show that there are significant differences between the currently depressed and recovered depressed groups (currently depressed scoring significantly higher) on each of these measures, with the exception of DEQ Dependency which did not differ significantly between the two groups. Therefore, dependency was not found to be stable on the DAS-24 subscale but was stable on the DEQ Dependency subscale, thus the evidence for accepting hypothesis 1a is inconclusive. However, self-criticism was not found to be stable across mood states regardless of measure used, with significantly lower scores when recovered than when currently depressed, contrary to hypothesis 1b.

3.5 Dependency and Self-criticism, as measured by the DEQ and DAS-24, as vulnerability factors for depression

The concept of Dependency and Self-criticism as vulnerability factors was tested by comparing the depressed and recovered groups with the never depressed group. Individual Mann-Whitney tests were done to compare each of the clinical groups with the never depressed group on both Dependency, as measured by the Dependency subscales of the DEQ and DAS-24, and Self-criticism, as measured by the Self-criticism subscale of the DEQ and the Achievement subscale of the DAS-24.

3.5.1 Hypothesis 2a: Depressed and recovered depressed participants will exhibit higher levels of Dependency than never depressed participants on DEQ and DAS-24.

Comparisons were made between the currently depressed and never depressed groups on level of dependency as measured by the DEQ and the DAS-24. On both measures,

the currently depressed group scored significantly higher on levels of dependency than the never depressed group (see Table 7): DEQ Dependency ($U = 97.00$, $z = -2.75$, $p = .006$, two-tailed), and DAS-24 Dependency ($U = 61.00$, $z = -3.72$, $p < .001$, two-tailed).

Table 7. Comparison of currently and never depressed groups on DEQ and DAS-24 Dependency scores.

	Currently depressed (N = 25) Mean Rank	Never depressed (N = 16) Mean Rank	*U* value	*z* value	*p* value (two-tailed)
DEQ Dependency	25.12	14.46	97.00	-2.75	.006
DAS-24 Dependency	26.56	12.31	61.00	-3.72	< .001

Boxplots representing the scores on both Dependency scales suggest that the groups of recovered and never depressed participants are quite equal (see Figures 5 and 6).

Figure 5. DEQ Dependency for recovered and never depressed

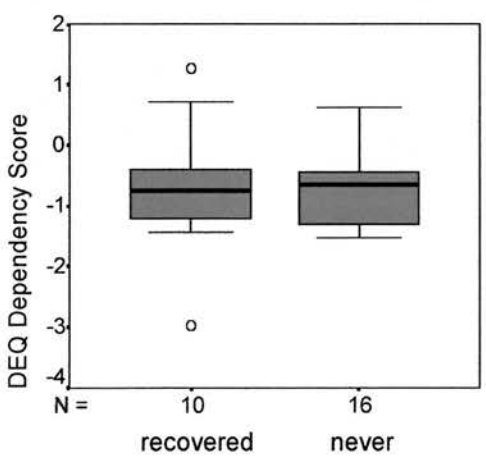
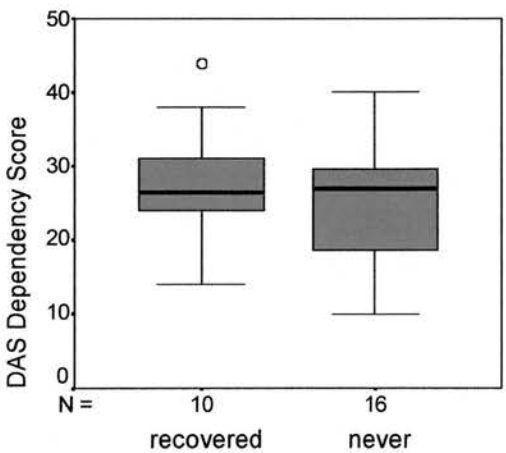


Figure 6. DAS-24 Achievement for recovered and never depressed



The recovered depressed group were compared with the never depressed group on DEQ Dependency and DAS-24 Dependency. No significant differences were found between these groups on either measure of dependency: DEQ Dependency (U = 78.00, z = -0.10, p = .937, two-tailed), and DAS-24 Dependency (U = 70.00, z = -.53, p = .597, two-tailed) (see Table 8.). Thus, hypothesis 2a was not upheld as a significant difference was predicted.

Table 8. Comparison of recovered and never depressed groups on DEQ and DAS-24 Dependency scores.

	Recovered depressed (N = 10) Mean Rank	Never depressed (N = 16) Mean Rank	U value	z value	p value (two-tailed)
DEQ Dependency	13.70	13.38	78.00	-0.10	.937
DAS-24 Dependency	14.50	12.88	70.00	-0.53	.597

3.5.2 Hypothesis 2b: Depressed and recovered depressed participants will exhibit higher levels of Self-criticism than never depressed participants on DEQ and DAS-24.

The currently depressed and never depressed groups were compared on DEQ Self-criticism and DAS-24 Achievement scores. Significant differences were found, with currently depressed scoring higher on both measures (see Table 9): DEQ Self-criticism (U = 0.00, z = -5.34, p < .001, two-tailed), and DAS-24 Achievement (U = 71.00, z = -3.45, p = .001, two-tailed).

Table 9. Comparison of currently and never depressed groups on DEQ Self-criticism and DAS-24 Achievement.

	Currently depressed (N = 25) Mean Rank	Never depressed (N = 16) Mean Rank	*U* value	*z* value	*p* value (two-tailed)
DEQ Self-criticism	29.00	8.50	0.00	-5.34	< .001
DAS-24 Achievement	26.16	12.94	71.00	-3.45	.001

The boxplot of the scores on DEQ Self-criticism suggests that there may be a difference between the recovered and the never depressed group (Figure 7) while scores for these groups on the DAS-24 Achievement scale do not appear to be as markedly different (Figure 8).

Figure 7. DEQ Self-criticism scores for recovered and never depressed

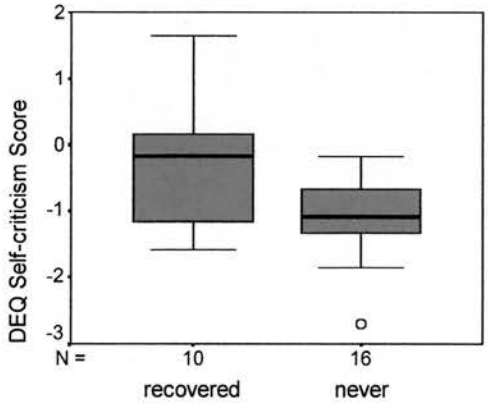
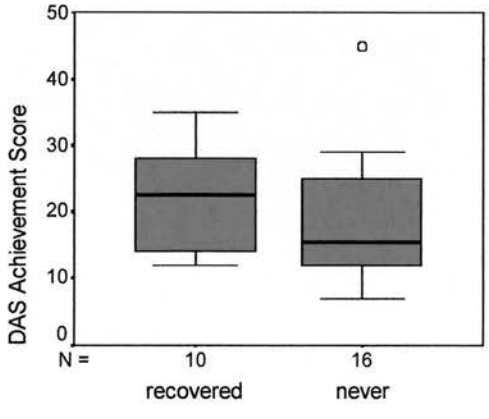


Figure 8. DAS-24 Achievement scores for recovered and never depressed



Comparison between the recovered depressed group and the never depressed group on the DEQ Self-criticism and the DAS-24 Achievement subscales revealed no significant differences between the groups on these measures: DEQ Self-criticism (*U*

= 44.00, z = -1.90, p = .058, two-tailed), and DAS-24 Achievement (U = 54.50, z = -1.35, p = .177, two-tailed) (see Table 10). As with dependency, these results do not seem to support hypothesis 2b, however the comparison between the groups on DEQ Self-criticism suggests a trend towards a significant difference. Thus self-criticism does not appear to be a vulnerability factor although the evidence here is not conclusive.

Table 10. Comparison of recovered and never depressed groups on DEQ Self-criticism and DAS-24 Achievement.

	Recovered depressed (N = 10) Mean Rank	Never depressed (N = 16) Mean Rank	U value	z value	p value (two-tailed)
DEQ Self-criticism	17.10	11.25	44.00	-1.90	.058
DAS-24 Achievement	16.05	11.91	54.50	-1.35	.177

To summarise the findings for the vulnerability hypotheses, the currently depressed group scored significantly higher on measures of both dependency and self-criticism, as predicted. More important in the assessment of these concepts as vulnerability factors are the comparisons of the recovered group with the never depressed group. These analyses showed that for Dependency and Self-criticism, irrespective of the measure used, the recovered group did not score significantly higher than the never depressed group. However, it should be noted that the difference between the recovered group and the never depressed group on DEQ Self-criticism almost reached significance. Therefore, as there appears to be a trend towards significance, on this measure it cannot be concluded firmly that there is no difference between the two

groups. This finding provides equivocal results regarding the vulnerability hypothesis for self-criticism.

3.6 Gender differences in scores on the domains of the DEQ and the DAS-24.

Gender differences were assessed by comparing the male and female scores within each clinical group on each domain of the DEQ and DAS-24.

3.6.1 Hypothesis 3a: Male depressed and female currently depressed participants will exhibit no significant difference in scores on the domains of the DEQ and DAS-24.

The BDI-II, HAD-D and HAD-A scores and age for the male and female groups were analysed to ensure that they were comparable. No significant differences were found between the male and female currently depressed groups on any of these variables.

On comparison between the males and females in the depressed group (see Table 11), only one significant difference was found on the subscales of the questionnaires: DEQ Dependency ($U = 22.00$, $z = -2.83$, $p = .005$, two-tailed). On this subscale, the female depressed participants scored significantly higher than the male depressed participants. It should also be noted that on DAS-24 Dependency a similar pattern was found as there was a trend towards significance with the female depressed scoring higher than the males on this measure also. However, overall these results provide good evidence to support hypothesis 3a.

Table 11. Gender comparison of currently depressed on DEQ and DAS-24 domains

	Male depressed (N = 9) Mean rank	Female depressed (N = 16) Mean Rank	*U* value	*z* value	*p* value (two-tailed)
DAS-24 Dependency	9.67	14.88	42.00	-1.70	.089
DAS-24 Achievement	12.17	13.47	64.50	-0.42	.671
DAS-24 Self-control	12.78	13.13	70.00	-0.11	.910
DAS-24 Total score	11.67	13.75	60.00	-0.68	.497
DEQ Dependency	7.44	16.13	22.00	-2.83	.005
DEQ Self-criticism	14.00	12.44	63.00	-0.51	.610
DEQ Efficacy	12.89	13.06	71.00	-0.06	.955

3.6.2 Hypothesis 3b: Male recovered depressed and female recovered depressed participants will exhibit no significant difference in scores on the domains of the DEQ and DAS-24.

Due to the very low numbers in the male recovered group (N = 3), no differences were expected to be found between the genders on the domains of the DEQ and DAS-24. Comparisons revealed no significant differences between the male and female recovered groups on any of the subscales of the DEQ or the DAS-24 as expected.

3.7 Post hoc analysis

Due to the gender difference on the DEQ dependency scale when comparing male and female currently depressed participants, a further comparison was made between the currently depressed and recovered depressed female groups. This was done because the gender difference may have affected the results of the analysis of the stability

hypothesis. Ideally a comparison of the male groups of currently and recovered depressed should also be done but this would be unlikely to reveal any reliable results due to the very low numbers of male recovered participants. Table 12 shows that there is no significant difference between the currently depressed and recovered depressed female groups (U = 28.00, z = -1.87, p = .061, two-tailed). Relating this to the findings of the previous analysis of the stability of dependency as measured by the DEQ, again the results suggest that DEQ Dependency is stable. Thus, the gender difference on DEQ dependency for currently depressed participants does not seem to have affected the combined gender analysis of the stability hypothesis.

Table 12. Comparison of female currently and recovered depressed groups on DEQ Dependency.

	Currently depressed females (n= 16) Mean Rank	Recovered depressed females (n= 7) Mean Rank	*U* value	*z* value	*p* value (two-tailed)
DEQ Dependency	13.75	8.00	28.00	-1.87	.061

Discussion

4. 1 Summary of results

4.1.1 Stability hypothesis

The stability of dependency and self-criticism was analysed by comparing the scores of the currently depressed group with those of the recovered depressed group on the relevant subscales of the DEQ and the DAS-24. If the factors are stable, we would expect to find no significant difference between the groups on these measures. Overall, the evidence from this study lends little support to this hypothesis.

Hypothesis 1a stated that there should be no significant difference in levels of dependency between these two groups on the DEQ and DAS-24 Dependency subscales, however it was found that there was a significant difference on the DAS-24. On the DEQ dependency subscale, no significant difference between the currently depressed and recovered depressed groups was found. This result is in favour of the stability hypothesis. However, while the result was not significant which suggests stability, this may have been due to the small number of participants in the recovered group (see below for discussion of limitations due to small sample sizes). Viewing the boxplots which graphically display the data (see Figure 1), there appears to be a difference in means and medians and the difference in median ranks (see Table 5) also suggest that the currently depressed group scored higher than the recovered group on DEQ Dependency. Another factor which may have affected the ability of this study to find a significant difference may be that in the case of the DEQ, it has a very limited

scoring range, therefore significant differences may be more difficult to detect. Certainly, when considered in light of the highly significant difference between the groups on the DAS-24 Dependency subscale, the evidence suggests that this is not a stable characteristic.

The analysis of the stability of self-criticism suggested that hypothesis 1b should be rejected. On both the DEQ Self-criticism and the DAS-24 Achievement subscales the currently depressed group scored significantly higher than the recovered depressed group. Thus, self-criticism does not appear to be stable and seems to be affected by mood-state.

Overall, the evidence from this analysis indicates that dependency and self-criticism are mood-state dependent and not stable factors as proposed by the theoretical models.

4.1.2 Vulnerability hypothesis

The vulnerability hypothesis was analysed by comparing the clinical groups, the currently and recovered depressed groups, with the never depressed group. The most important comparison to assess this hypothesis is the comparison between the recovered group and the never depressed group. If dependency and self-criticism are vulnerability factors, the measured levels in the recovered group should be higher than those found in individuals who are not prone to depression. The results of the current study do not appear to provide evidence in support of this hypothesis.

The preliminary comparison of the currently depressed group with the never depressed group on levels of dependency confirmed that scores on the DEQ and DAS-24 Dependency subscales were significantly higher for the currently depressed as would be expected. However, in order to substantiate the vulnerability hypothesis, this difference would have to be apparent in the comparison of the recovered depressed with the never depressed. No significant difference was found between these groups.

The same pattern of results was found in the analysis of self-criticism. Again, the currently depressed group scored significantly higher than the never depressed group on DEQ and DAS-24 measures, and there was no significant difference found between the recovered depressed and never depressed groups. However, it should be noted that on DEQ Self-criticism, the comparison of recovered and never depressed was very close to achieving significance. As mentioned above, the small scoring range of the DEQ will make reaching significance more difficult. Also, viewing the boxplots of the data, levels of self-criticism as measured by the DEQ and the DAS-24 are higher in the recovered group, although clearly this difference in not statistically significant. Despite this, the evidence is in favour of rejecting the hypothesis that self-criticism is a vulnerability factor.

Again, the evidence here seems to contradict the proposal that dependency and self-criticism are vulnerability factors. The expected pattern of higher levels of dependency and self-criticism in the recovered group as compared with the never depressed group

was not found, although the evidence was not so conclusive in the case of self-criticism.

4.1.3 Gender differences

Due to the very limited number of participants, and in particular male participants, an analysis of gender differences was very restricted. The aim of these comparisons was to evaluate if there were any differences in levels of not just dependency and self-criticism but to extend the analysis to compare all domains of the DEQ and the DAS-24. Clearly, the comparison of levels of dependency and self-criticism are of most importance to this study, however it was felt to be worthwhile to evaluate possible differences in the other subscales as this data had also been collected. Beck (1983) suggested that there may be a gender difference in levels of sociotropy (dependency) and autonomy (self-criticism), however Blatt (1974) did not make any claims about the effects of gender. Also, the difference in depression prevalence rates for females and males does suggest that there may be some underlying factor, or factors, to account for this. Thus, each subscale was compared. Gender comparisons were made within the currently depressed group and also the recovered depressed group.

The analysis of the currently depressed group showed only one significant difference between the males and the females. This was in the DEQ Dependency subscale with the female currently depressed group scoring significantly higher than the males. Interestingly, the only other comparison that came close to significance was of DAS-24 Dependency, again with the female group scoring higher than the male group.

Therefore, this analysis suggests that there may be a tendency towards depressed females exhibiting more dependent characteristics than men.

The proposed gender comparison within the recovered depressed group was not really appropriate due to the very small number of participants. As expected, due to this limitation, no significant differences were found. No conclusions can be drawn from this analysis.

4.1.4 Post hoc analysis

As the currently depressed female group were found to have scored significantly higher than the currently depressed males on the DEQ Dependency subscale, it was felt that this may have affected the initial analysis of the stability hypothesis when comparison of currently depressed and recovered groups as a whole were made. Therefore, this analysis was repeated, comparing the female currently depressed group with the female recovered depressed group. As had been found before, no significant difference was found between the currently depressed and recovered depressed on DEQ Dependency, however this comparison was closer to reaching significance than when the comparison was made with the genders combined. Thus, this suggests that while statistical significance was not reached, there is a tendency towards dependency being affected by mood-state.

4.2 Comparison with other studies

The evidence from previous literature is equivocal, with arguments in favour of and against the stability hypothesis suggested by Blatt (1974) and Beck (1983). A few

studies using the DEQ to measure dependency and self-criticism did find some evidence of stability (Franche & Dobson, 1992; Bagby *et al.*, 1994), however the results of this study clearly favour the mood-state dependent hypothesis in line with the findings of Klein *et al.* (1988). As their study only included female participants, the inclusion of males in the current study provides additional weight to the evidence that dependency and self-criticism are affected by mood. However, it should also be noted that, while no statistical significance was found, there did seem to be a difference between the recovered and never depressed groups on levels of self-criticism, particularly as measured by the DEQ, with higher levels found in the recovered group. This comparison came very close to significance thus there seems to be a trend towards a difference between the recovered and never depressed groups. Further to this, if a one-tailed test had been used rather than the more conservative two-tailed test, this result would have reached significance clearly. This suggests that even though self-criticism does not remain stable, levels may be higher in recovered depressed individuals, thus it may be a vulnerability factor. Therefore, the findings of Franche & Dobson (1992) and Bagby *et al.* (1994) were partially supported.

The conflicting findings between the current study and other research could be due to a number of factors as discussed in section 1.8.3. Franche & Dobson (1992) have been criticised for including recovered depressives with BDI scores of 15 or less, which leads to the inclusion of participants scoring in the "mild" range of the BDI. Frank, *et al.* (1991) quote the cut off of less than or equal to eight in order to ensure a patient is asymptomatic. Similarly, Bagby *et al.* (1994) included individuals with a score on the HRSD of below 10, which again would lead to the inclusion of patients

who may still have residual symptoms according to Frank *et al.*'s (1991) criteria. Therefore, the seemingly stable levels of dependency and self-criticism found by these researchers could be due to the fact that this group may not be fully recovered. If this were the case, then their findings do not disprove the mood-state dependency hypothesis. In the current study, attempts were made to only include participants in the recovered group who scored within the "minimal" range of the BDI-II, although two participants did score just outside this cut off, therefore this criteria was somewhat more stringent and reduced the possibility of the presence of residual depressive symptoms. In spite of this, analysis of the BDI-II scores showed that the recovered group scored significantly higher than the never depressed group, thus this criticism could apply to the current study also.

As suggested by Persons & Miranda (1992), the evidence presented here does not necessarily rule out the theory that dependency and self-criticism are vulnerability factors to depression. They stated that often findings such as those presented here, which indicate the instability of these factors, are seen to confirm the theory that they are in fact concomitants of depression rather than vulnerabilities. Their findings from experimental evidence indicated that an activating event was able to trigger the dysfunctional attitudes. Similarly, it may be that dependency and self-criticism levels do reduce when the individual is no longer in a depressive state but that they remain latent and inactive. This hypothesis is consistent with cognitive theories of depression (e.g. Beck, 1967). Therefore, while this evidence suggests these factors are not vulnerabilities to depression, this may be due to methodological problems (see section 4.3).

Specificity of dependency and self-criticism to depression was not addressed directly by this study, however the inclusion of the HAD-A did provide a tentative indication of levels of anxiety in the groups. Bagby *et al.*'s (1992) findings indicated that levels of dependency and self-criticism were equivalent in depressed patients and anxious patients. All the depressed participants in the current study had a primary diagnosis of depression and the recovered depressed individuals had had a previous diagnosis of depression. However, the HAD-A revealed significantly higher levels of anxiety in the depressed group than both the recovered and never depressed groups, while the recovered group had significantly higher levels of anxiety than the never depressed group. Therefore, the findings here may also be applicable to anxiety. Clearly, firm conclusions cannot be drawn from this but it does provide tentative support for Bagby *et al.*'s (1992) results.

The results of the gender difference analysis could only produce limited information due to the very small sample sizes, therefore it is difficult to draw many conclusions from this. The finding that dependency, as measured by the DEQ, was significantly greater in the female currently depressed participants than the males while scores on all other subscales of the DEQ and DAS-24 showed no significant differences, does not provide much support for a gender difference on these personality factors overall. Also, because females did not score higher on the DAS-24 Dependency subscale, a firm conclusion about gender differences in dependency cannot be made. Further to this, because a comparison of the recovered females and males was not really possible, this study was unable to provide data on possible gender differences in "vulnerable" individuals. This analysis may have allowed conclusions to be drawn regarding the

higher prevalence rates of depression in women than men. Certainly, when considering the two-to-one ratio of depressed females to males, this study cannot provide evidence of higher levels of certain traits which may make females more vulnerable to depression than men as suggested by the psychosocial hypothesis for gender differences (Radloff & Rae, 1979; Brems, 1995). The finding that females may have a tendency towards higher levels of dependency than males when they are depressed cannot provide any insight into the differences in prevalence rates, however it may provide some evidence of a possible difference in the experience of depression. Although, even in this case, the evidence is hardly overwhelming as the DAS-24 Dependency subscale did not differ across gender.

In relation to the other studies which discussed gender differences in levels of dependency and self-criticism, conclusions and comparisons are difficult to make due to the lack of firm results. Rosenfarb *et al.*'s (1998) suggestion that recovered males may score higher on measures of dependency than females could not be examined due to the small numbers of recovered participants in the current study. This also makes comparison with Hirschfeld *et al.*'s (1984) problematic as their findings were based on recovered depressed individuals. Certainly, Beck's (1983) claim that female depression is more likely to be characterised by soicotropic tendencies was only very tentatively upheld with the significantly higher score on DEQ Dependency in female depressed than male depressed participants. However, the other side of this suggestion, that male depression is more autonomy-based, was not supported.

4.3 Limitations of the current study

A clear limitation of this study was the low sample numbers. As discussed in the Methods section, non-parametric statistics were used throughout this study because the small numbers made it impossible to have a clear indication of the normality and variance of the samples. While parametric statistical procedures can be highly robust in spite of violations of these assumptions, this is not true when sample sizes are unequal as they are in this study. As non-parametric analyses can be less powerful than their parametric equivalents, the ability of this study to achieve significant results was clearly reduced. However, as can be seen from the analyses conducted, several significant results were found despite the limitations. The small sample sizes may have affected the power of the multiple Mann-Whitney analyses conducted to test the hypotheses. This became particularly problematic when attempting to analyse the gender differences.

The results may be limited by the difference in gender mix in each group. While the current and recovered groups both consisted of roughly twice as many female participants as male participants, the never depressed group had equal numbers of both (suggested reasons for this discrepancy in numbers between genders in the clinical groups is discussed below). As the groups are not equivalent in their composition, this may restrict the extent to which they can be compared appropriately.

The cross-sectional design of this study limits the extent to which the vulnerability and stability hypotheses can adequately be tested. Ideally, a prospective, longitudinal

design would be necessary to provide a more rigorous analysis of dependency and self-criticism as vulnerabilities to depression. Vulnerability studies which use a cross-sectional design comparing currently depressed with recovered depressed patients are measuring the differences in levels of dependency and self-criticism during a period of depression and after a period of depression. Thus, in the recovered group, it is not clear if the levels of dependency and self-criticism are stable vulnerability factors which have been present prior to the episode of depression, or if they are in fact there as a consequence. Therefore, if higher levels of dependency and self-criticism were found in the recovered group, this could just be evidence of the "scar hypothesis", that is, they developed as a consequence of the depression. With this design, we could not know if the recovered group had higher levels of dependency and self-criticism prior to their depression, therefore, we could not conclude that they constitute stable vulnerability factors. However, the evidence from this study does not support the hypothesis that dependency and self-criticism are stable vulnerability factors, and thus it provides no clear evidence for the "scar hypothesis" either.

There are also problems with the use of the never depressed participants as a control group. This group is supposed to represent individuals who are not prone to depression. Clearly, we cannot say categorically that they will not develop depression, all that can be ensured is that they have not suffered from depression in the past. Thus, there may be "vulnerable" individuals in the never depressed group which may lead to an increased score on the measures of dependency and self-criticism. Again, the only way to control for this is to use a longitudinal prospective design which was not possible in this case.

As was discussed in the Literature Review, there has been a suggestion that the lack of evidence for the hypothesis that high levels of dependency and self-criticism constitute vulnerabilities to depression lies in the fact that these factors are dormant when an individual is not in a depressed state (Persons & Miranda, 1988). Their suggestion was to include an activating event to elicit the dependent and self-critical beliefs. This approach was not taken in this study as other research using the DEQ has found comparable levels of dependency and self-criticism in recovered depressed groups to currently depressed groups. However, in light of the current study's findings that recovered depressed participants did not score as highly as currently depressed participants on measures of these factors, this may have been due to the lack of an event activating the beliefs. It may be that with an activating event, dependency and self-criticism levels could have been as high in the recovered group as they were in the currently depressed group.

4.4 Practical difficulties with the current study

A number of difficulties were encountered during the execution of this study. These problems centred primarily around recruitment issues particularly in the case of the recovered depressed group.

The criteria for inclusion in the recovered depressed group specified that participants should no longer reach the ICD-10 diagnostic criteria for depression, and have a score 14 or less on the BDI-II. In order to ensure that each participant was "recovered", it was necessary to recruit from psychiatric services for these diagnostic purposes. However, this restricted potential participants to those who were not yet discharged

but in the follow-up stage of treatment. Clearly, most patients who are seen to be recovered are discharged, therefore only a small number of potential participants were initially identified by the Psychiatrists who were approached.

Alternative avenues of recruitment for the recovered group were considered. These included recruitment from GP practices and from Clinical Psychology. It was felt that recruiting from Clinical Psychology services would not be appropriate for this study due to concerns about a possible effect from different treatments. As the purpose of this study was to evaluate the difference in levels of dependency and self-criticism when currently depressed and in a recovered state, the inclusion of individuals treated with cognitive techniques was seen to be a possible confounding factor. If lower levels of dependency and self-criticism were found, this may have been due to recent treatment with techniques which are designed to tackle these underlying issues. Clearly, medication does not actively challenge beliefs, therefore recovery following treatment by medication was seen to be the most appropriate way of simulating an asymptomatic state in a "depression-prone" individual.

The possible recruitment from GP practices was considered but not pursued due to concerns that potential participants may not have been adequately diagnosed as no longer reaching the criteria for depression. This study attempted to assess levels of depression quite rigorously through psychiatric diagnosis as well as the individual BDI-II score, thus identification by a GP was not considered to be adequate even if it was backed up by a low BDI-II score. In a recent study investigating cognitive deficits in older adults with depression, Torrens (1999) found that when recruiting

"recovered" depressed participants from GP practices, several of those identified were actually found to be significantly depressed as assessed by interview, observation and the Geriatric Depression Scale (GDS). It was hypothesised that this misallocation to the recovered group could have been due to poorer monitoring of the progression of the disorder by GPs than in psychiatric services, possibly because of the markedly greater case load of the former.

As mentioned above, the potential participants also had to score in the "minimal" range on the BDI-II. This criteria provided further restrictions on the number of participants who could be included in the recovered group. Two patients identified as recovered by Psychiatrists had to be excluded from the study as they both scored in the "moderate" range on the BDI-II. A further two participants scored 14 on the BDI-II, which should have excluded them from the recovered group as the cut-off for minimal symptomatology is set at 13 or below, however the decision was taken to include them due to low numbers of identified recovered participants.

An additional difficulty with the recovered group lies in the definition of "recovery". Other studies using recovered depressed groups specified how long individuals were seen to be recovered from the disorder. Initially, it had been hoped to recruit only individuals who had been recovered for at least three months, however on consultation with the Psychiatrists involved in the recruitment process, it became clear that this would not be possible. Only those individuals who were still in contact with psychiatric services could easily be recruited, therefore the amount of time that participants had been recovered from there depression was going to be greatly

reduced, as a lengthy recovery would lead to the patient being discharged. Thus, in order to increase participation, no length of time recovered was set. Clearly, this led to concerns about the level of recovery and possible residual symptoms of depression. As the comparison of BDI-II scores suggested, this concern may have been justified as the recovered group scored significantly higher than the never depressed group.

Difficulties were also experienced in the recruitment of the never depressed group. A large GP practice had been involved with recruitment for this group and a presentation to the partners had been made to encourage their involvement. While this procedure resulted in a substantial number of potential participants being identified, subsequent consent from those individuals who were approached was poor. Steps had been taken to encourage consent, such as the letter of invitation coming from the potential participants' GP rather than directly from the researcher, however the response rate was still poor. Due to this, it was necessary to recruit never depressed participants from friends and family. This procedure resulted in a 100 per cent return rate.

A general recruitment difficulty of the clinical groups was with the identification of potential male currently and recovered depressed participants. As can be seen from the final sample numbers, only nine currently depressed males and three recovered depressed male were recruited in comparison with 16 and seven females in each group respectively. This problem seemed to be at the stage of identification rather than consent. However, this difference in numbers between females and males is not unexpected due to accepted ratio of 2:1 depressed females to depressed males.

4.5 Suggestions for future research

It seems that more stringent testing of the hypothesis that dependency and self-criticism are vulnerability factors to depression needs to take place. The use of prospective, longitudinal designs are needed in order to avoid the limitations of much of the research, including the current study, as discussed above. Also, the inclusion of an activating event as suggested by Persons & Miranda (1992) would seem to be a necessary part of the research as many theories of depression propose the interaction of both vulnerability and stressful events in the development of the disorder (e.g. Beck, 1983).

Clearly, more work could be done to investigate the gender differences in the prevalence rates of depression. With larger sample sizes, analysis of these personality factors may reveal differences which could account for the preponderance of depression in females. Much of the research in this area has been conducted by looking at female samples alone. It is necessary to conduct more research which allows comparison of gender-related differences or even studies looking at just male participants. May also be useful to evaluate the individual's perception of themselves in relation to their sex-role.

It seems that the research in this area would benefit from the use of more than one measure of dependency and self-criticism. So far, the majority of the literature has used a single measure and its selection seems to depend on the theoretical viewpoint of the researcher. However, while the measures may come from different theoretical stances, they are generally considered to measure similar concepts. Comparing the

results of studies which have utilised different questionnaires is problematic and differences in results may be due to these differing methodologies. Further to this, the use of more than one measure can only lend more weight to the findings of the researcher.

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Appendices

Appendix 1: Ethical Approval

Appendix 2: Consent form

Appendix 3: Information sheet for participants

Appendix 4: Beck Depression Inventory-Second Edition (BDI-II)

Appendix 5: Hospital Anxiety and Depression Scale (HAD)

Appendix 6: Depressive Experiences Questionnaire (DEQ)

Appendix 7: Dysfunctional Attitudes Scale-24 Item (DAS-24)

Appendix 1

GRAMPIAN HEALTH BOARD
AND
UNIVERSITY OF ABERDEEN
GRAMPIAN RESEARCH ETHICS COMMITTEE

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07 February 2000

Project No:00/0013

Miss Sonia Dyson
Trainee Clinical Psychologist
Dept of Clinical Psychology
Block A
Clerkseat Building
Cornhill Hospital
Aberdeen

Dear Miss Dyson

Self criticism and dependency as cognitive vulnerability factors to depression - are there gender differences?

The above project was considered at the Grampian Research Ethics Sub-Committee meeting of 31st January 2000, and I am pleased to confirm that ethical approval for this project has now been granted.

With regards to medical indemnity, I enclose a form which should be completed and returned to either; Dr J Broom, Research & Development Director, Research & Development Offices, Grampian University Hospitals Trust, Aberdeen Royal Infirmary, Foresterhill, Aberdeen, or Medical Director, Grampian Primary Care Trust, Bennachie, Royal Cornhill Hospital, Cornhill Road, Aberdeen, as appropriate, if you wish one of the above Trusts to accept liability for medical indemnity for this project.

We would be very glad to receive, in due course, copies of any publications arising from this research. Thank you for bringing this study to the Committee's attention.

Yours sincerely

Mrs Aileen Low
Clerk to the Grampian Research Ethics Committee

Appendix 2

CONSENT BY PATIENT/VOLUNTEER TO PARTICIPATE IN:

RESEARCH PROJECT - VULNERABILITY TO DEPRESSION

Name of
Patient/Volunteer:.....

Principal Investigator: MS SONIA DYSON

I have read the patient/volunteer information sheet on the above study and have had the opportunity to discuss the details with Sonia Dyson and ask questions. The nature and purpose of the tests to be undertaken have been explained to me. I understand fully what is proposed to be done.

I have agreed to take part in the study as it has been outlined to me, but I understand that I am completely free to withdraw from the study or any part of the study at any time I wish and that this will not affect my continuing treatment in any way.

I understand that these trials are part of a research project which has been approved by the Joint Ethical Committee, and may be of no benefit to me personally. The Joint Ethical Committee may wish to inspect the data collected at any time as part of its monitoring activities.

I also understand that, where appropriate, my General Practitioner will be informed that I have taken part in this study.

I hereby fully and freely consent to participate in the study which has been fully explained to me.

Signature of
Patient/Volunteer:.....

Date: .....

I confirm that I have explained to the patient/volunteer named above, the nature and purpose of the tests to be undertaken.

Signature of
Investigator:.....

Date:.....

Appendix 3

CLINICAL & COUNSELLING PSYCHOLOGY
Block A., Clerkseat Building, Royal Cornhill Hospital, Aberdeen, AB25 2ZH
Tel - Direct Line: (01224) 557219 Fax (01224) 404045

INFORMATION SHEET
VULNERABILITY TO DEPRESSION PROJECT

Introduction

Past research has found that certain characteristics can make people more likely to develop depression. The aim of this project is to look in more detail at two of these: how critical people are of themselves and how dependent they are on others. Also, this project will be comparing men and women to see if there are gender differences in these characteristics.

I would like to invite you to participate in this research project to help us learn more about the development of depression.

What will I have to do if I take part?

The study will involve filling in four short questionnaires which should take 20-30 minutes in total to complete. These will be sent to you with a pre-paid envelope in which to return them. If you have any difficulties completing them, the researcher, Sonia Dyson, can be contacted to answer any questions you may have.

The information collected is confidential and will only be used for this research project, however if your completed questionnaires suggest you may be suffering from depression and you are not currently receiving any treatment for this, your GP may be contacted.

Do I have to take part?

No, taking part is voluntary. If you would prefer not to take part you do not have to give a reason. Your doctor/ therapist would not be upset and, if you are receiving treatment, this would not be affected. If you take part but later change your mind you can withdraw at any time.

What do I do now?

If you would like to take part in the study, please return the enclosed consent form in the pre-paid envelope or contact me directly at the address or telephone number below if you would like to know more.

Thank you very much for considering to take part in my research. Please discuss this information with your friends, family, GP or key therapist if you wish.

Sonia Dyson, Psychologist in Clinical Training
Dept. of Clinical Psychology
Clerkseat Building (Block A)
Royal Cornhill Hospital
Aberdeen
Tel: 01224 557219

Appendix 4

BDI-II

Date:

Name: _____ Marital Status: _____ Age: _____ Sex: _____

Occupation: _____ Education: _____

Instructions: This questionnaire consists of 21 groups of statements. Please read each group of statements carefully, and then pick out the **one statement** in each group that best describes the way you have been feeling during the **past two weeks, including today**. Circle the number beside the statement you have picked. If several statements in the group seem to apply equally well, circle the highest number for that group. Be sure that you do not choose more than one statement for any group, including Item 16 (Changes in Sleeping Pattern) or Item 18 (Changes in Appetite).

1. Sadness

0 I do not feel sad.
1 I feel sad much of the time.
2 I am sad all the time.
3 I am so sad or unhappy that I can't stand it.

2. Pessimism

0 I am not discouraged about my future.
1 I feel more discouraged about my future than I used to be.
2 I do not expect things to work out for me.
3 I feel my future is hopeless and will only get worse.

3. Past Failure

0 I do not feel like a failure.
1 I have failed more than I should have.
2 As I look back, I see a lot of failures.
3 I feel I am a total failure as a person.

4. Loss of Pleasure

0 I get as much pleasure as I ever did from the things I enjoy.
1 I don't enjoy things as much as I used to.
2 I get very little pleasure from the things I used to enjoy.
3 I can't get any pleasure from the things I used to enjoy.

5. Guilty Feelings

0 I don't feel particularly guilty.
1 I feel guilty over many things I have done or should have done.
2 I feel quite guilty most of the time.
3 I feel guilty all of the time.

6. Punishment Feelings

0 I don't feel I am being punished.
1 I feel I may be punished.
2 I expect to be punished.
3 I feel I am being punished.

7. Self-Dislike

0 I feel the same about myself as ever.
1 I have lost confidence in myself.
2 I am disappointed in myself.
3 I dislike myself.

8. Self-Criticalness

0 I don't criticize or blame myself more than usual.
1 I am more critical of myself than I used to be.
2 I criticize myself for all of my faults.
3 I blame myself for everything bad that happens.

9. Suicidal Thoughts or Wishes

0 I don't have any thoughts of killing myself.
1 I have thoughts of killing myself, but I would not carry them out.
2 I would like to kill myself.
3 I would kill myself if I had the chance.

10. Crying

0 I don't cry anymore than I used to.
1 I cry more than I used to.
2 I cry over every little thing.
3 I feel like crying, but I can't.

_____ Subtotal Page 1

Continued on Back

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11. Agitation

0 I am no more restless or wound up than usual.

1 I feel more restless or wound up than usual.

2 I am so restless or agitated that it's hard to stay still.

3 I am so restless or agitated that I have to keep moving or doing something.

12. Loss of Interest

0 I have not lost interest in other people or activities.

1 I am less interested in other people or things than before.

2 I have lost most of my interest in other people or things.

3 It's hard to get interested in anything.

13. Indecisiveness

0 I make decisions about as well as ever.

1 I find it more difficult to make decisions than usual.

2 I have much greater difficulty in making decisions than I used to.

3 I have trouble making any decisions.

14. Worthlessness

0 I do not feel I am worthless.

1 I don't consider myself as worthwhile and useful as I used to.

2 I feel more worthless as compared to other people.

3 I feel utterly worthless.

15. Loss of Energy

0 I have as much energy as ever.

1 I have less energy than I used to have.

2 I don't have enough energy to do very much.

3 I don't have enough energy to do anything.

16. Changes in Sleeping Pattern

0 I have not experienced any change in my sleeping pattern.

1a I sleep somewhat more than usual.

1b I sleep somewhat less than usual.

2a I sleep a lot more than usual.

2b I sleep a lot less than usual.

3a I sleep most of the day.

3b I wake up 1–2 hours early and can't get back to sleep.

17. Irritability

0 I am no more irritable than usual.

1 I am more irritable than usual.

2 I am much more irritable than usual.

3 I am irritable all the time.

18. Changes in Appetite

0 I have not experienced any change in my appetite.

1a My appetite is somewhat less than usual.

1b My appetite is somewhat greater than usual.

2a My appetite is much less than before.

2b My appetite is much greater than usual.

3a I have no appetite at all.

3b I crave food all the time.

19. Concentration Difficulty

0 I can concentrate as well as ever.

1 I can't concentrate as well as usual.

2 It's hard to keep my mind on anything for very long.

3 I find I can't concentrate on anything.

20. Tiredness or Fatigue

0 I am no more tired or fatigued than usual.

1 I get more tired or fatigued more easily than usual.

2 I am too tired or fatigued to do a lot of the things I used to do.

3 I am too tired or fatigued to do most of the things I used to do.

21. Loss of Interest in Sex

0 I have not noticed any recent change in my interest in sex.

1 I am less interested in sex than I used to be.

2 I am much less interested in sex now.

3 I have lost interest in sex completely.

7 8 9 10 11 12 A B C D E

____ Subtotal Page 2

____ Subtotal Page 1

____ Total Score

Appendix 5

HAD Scale

Name: Date:

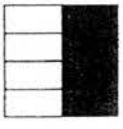
Doctors are aware that emotions play an important part in most illnesses. If your doctor knows about these feelings he will be able to help you more.
This questionnaire is designed to help your doctor to know how you feel. Read each item and place a firm tick in the box opposite the reply which comes closest to how you have been feeling in the past week.
Don't take too long over your replies: your immediate reaction to each item will probably be more accurate than a long thought-out response.

Tick only one box in each section

I feel tense or 'wound up':
- Most of the time
- A lot of the time
- Time to time, Occasionally
- Not at all

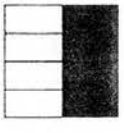
I still enjoy the things I used to enjoy:
- Definitely as much
- Not quite so much
- Only a little
- Hardly at all

I get a sort of frightened feeling as if something awful is about to happen:
- Very definitely and quite badly
- Yes, but not too badly
- A little, but it doesn't worry me
- Not at all

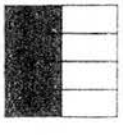


I can laugh and see the funny side of things:
- As much as I always could
- Not quite so much now
- Definitely not so much now
- Not at all

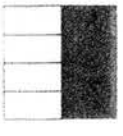
Worrying thoughts go through my mind:
- A great deal of the time
- A lot of the time
- From time to time but not too often
- Only occasionally



I feel cheerful:
- Not at all
- Not often
- Sometimes
- Most of the time

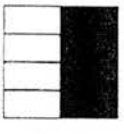


I can sit at ease and feel relaxed:
- Definitely
- Usually
- Not often
- Not at all



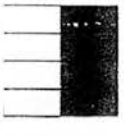
I feel as if I am slowed down:
- Nearly all the time
- Very often
- Sometimes
- Not at all

I get a sort of frightened feeling like 'butterflies' in the stomach:
- Not at all
- Occasionally
- Quite often
- Very often

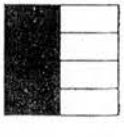


I have lost interest in my appearance:
- Definitely
- I don't take so much care as I should
- I may not take quite as much care
- I take just as much care as ever

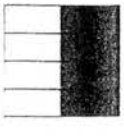
I feel restless as if I have to be on the move:
- Very much indeed
- Quite a lot
- Not very much
- Not at all



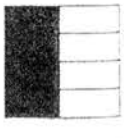
I look forward with enjoyment to things:
- As much as ever I did
- Rather less than I used to
- Definitely less than I used to
- Hardly at all



I get sudden feelings of panic:
- Very often indeed
- Quite often
- Not very often
- Not at all



I can enjoy a good book or radio or TV programme:
- Often
- Sometimes
- Not often
- Very seldom



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Appendix 6

DEQ

Listed below are a number of statements concerning personal characteristics and traits. Read each item and decide whether you agree or disagree and to what extent. If you strongly agree, circle 7; if you strongly disagree, circle 1; The midpoint, if you are neutral or undecided, is 4.

	Strongly Disagree						Strongly Agree
1. I set my personal goals and standards as high as possible.	1	2	3	4	5	6	7
2. Without support from others who are close to me, I would be helpless.	1	2	3	4	5	6	7
3. I tend to be satisfied with my current plans and goals, rather than striving for higher goals.	1	2	3	4	5	6	7
4. Sometimes I feel very big, and other times I feel very small.	1	2	3	4	5	6	7
5. When I am closely involved with someone, I never feel jealous.	1	2	3	4	5	6	7
6. I urgently need things that only other people can provide.	1	2	3	4	5	6	7
7. I often find that I don't live up to my own standards or ideals.	1	2	3	4	5	6	7
8. I feel I am always making full use of my potential abilities.	1	2	3	4	5	6	7
9. The lack of permanence in human relationships doesn't bother me.	1	2	3	4	5	6	7
10. If I fail to live up to expectations, I feel unworthy.	1	2	3	4	5	6	7
11. Many times I feel helpless.	1	2	3	4	5	6	7
12. I seldom worry about being criticized for things I have said or done.	1	2	3	4	5	6	7
13. There is a considerable difference between how I am now and how I would like to be.	1	2	3	4	5	6	7
14. I enjoy sharp competition with others.	1	2	3	4	5	6	7
15. I feel I have many responsibilities that I must meet.	1	2	3	4	5	6	7
16. There are times when I feel "empty" inside.	1	2	3	4	5	6	7
17. I tend not to be satisfied with what I have.	1	2	3	4	5	6	7

	Strongly Disagree						Strongly Agree
18. I don't care whether or not I live up to what other people expect of me.	1	2	3	4	5	6	7
19. I become frightened when I feel alone.	1	2	3	4	5	6	7
20. I would feel like I'd be losing an important part of myself if I lost a very close friend.	1	2	3	4	5	6	7
21. People will accept me no matter how many mistakes I have made.	1	2	3	4	5	6	7
22. I have difficulty breaking off a relationship that is making me unhappy.	1	2	3	4	5	6	7
23. I often think about the danger of losing someone who is close to me.	1	2	3	4	5	6	7
24. Other people have high expectations of me.	1	2	3	4	5	6	7
25. When I am with others, I tend to devalue or "undersell" myself.	1	2	3	4	5	6	7
26. I am not very concerned with how other people respond to me.	1	2	3	4	5	6	7
27. No matter how close a relationship between two people is, there is always a large amount of uncertainty and conflict.	1	2	3	4	5	6	7
28. I am very sensitive to others for signs of rejection.	1	2	3	4	5	6	7
29. It's important for my family that I succeed.	1	2	3	4	5	6	7
30. Often, I feel I have disappointed others.	1	2	3	4	5	6	7
31. If someone makes me angry, I let him (her) know how I feel.	1	2	3	4	5	6	7
32. I constantly try, and very often go out of my way, to please or help people I am close to.	1	2	3	4	5	6	7
33. I have many inner resources (abilities, strengths).	1	2	3	4	5	6	7
34. I find it very difficult to say "No" to the requests of friends.	1	2	3	4	5	6	7
35. I never really feel secure in a close relationship.	1	2	3	4	5	6	7
36. The way I feel about myself frequently varies: there are times when I feel extremely good about myself and other times when I see only the bad in me and feel like a total failure	1	2	3	4	5	6	7
37. Often, I feel threatened by change.	1	2	3	4	5	6	7
38. Even if the person who is closest to me were to leave, I could still "go it alone."	1	2	3	4	5	6	7

	Strongly Disagree						Strongly Agree
39. One must continually work to gain love from another person: that is, love has to be earned.	1	2	3	4	5	6	7
40. I am very sensitive to the effects my words or actions have on the feelings of other people.	1	2	3	4	5	6	7
41. I often blame myself for things I have done or said to someone.	1	2	3	4	5	6	7
42. I am a very independent person.	1	2	3	4	5	6	7
43. I often feel guilty.	1	2	3	4	5	6	7
44. I think of myself as a very complex person, one who has "many sides."	1	2	3	4	5	6	7
45. I worry a lot about offending or hurting someone who is close to me.	1	2	3	4	5	6	7
46. Anger frightens me.	1	2	3	4	5	6	7
47. It is not "who you are," but "what you have accomplished" that counts.	1	2	3	4	5	6	7
48. I feel good about myself whether I succeed or fail.	1	2	3	4	5	6	7
49. I can easily put my own feelings and problems aside, and devote my complete attention to the feelings and problems of someone else.	1	2	3	4	5	6	7
50. If someone I cared about became angry with me, I would feel threatened that he (she) might leave me.	1	2	3	4	5	6	7
51. I feel comfortable when I am given important responsibilities.	1	2	3	4	5	6	7
52. After a fight with a friend, I must make amends as soon as possible.	1	2	3	4	5	6	7
53. I have a difficult time accepting weaknesses in myself.	1	2	3	4	5	6	7
54. It is more important that I enjoy my work than it is for me to have my work approved.	1	2	3	4	5	6	7
55. After an argument, I feel very lonely.	1	2	3	4	5	6	7
56. In my relationships with others, I am very concerned about what they can give to me.	1	2	3	4	5	6	7
57. I rarely think about my family.	1	2	3	4	5	6	7

	Strongly Disagree						Strongly Agree
58. Very frequently, my feelings toward someone close to me vary: there are times when I feel completely angry and other times when I feel all-loving towards that person.	1	2	3	4	5	6	7
59. What I do and say has a very strong impact on those around me.	1	2	3	4	5	6	7
60. I sometimes feel that I am "special."	1	2	3	4	5	6	7
61. I grew up in an extremely close family.	1	2	3	4	5	6	7
62. I am very satisfied with myself and my accomplishments.	1	2	3	4	5	6	7
63. I want many things from someone I am close to.	1	2	3	4	5	6	7
64. I tend to be very critical of myself.	1	2	3	4	5	6	7
65. Being alone doesn't bother me at all.	1	2	3	4	5	6	7
66. I very frequently compare myself to standards or goals.	1	2	3	4	5	6	7

Appendix 7

DAS-24

This scale lists different attitudes or beliefs which people sometimes hold. Please read each statement carefully and decide how much you agree or disagree with what it says.

For each of the attitudes, please indicate your answer by placing a tick (√) under the column that best describes how you think. Be sure to choose only one answer for each attitude. But please note that because people are different, there is no right or wrong answer to these statements.

To decide whether a given answer is typical of your way of looking at things, simply keep in mind what you are like most of the time.

ATTITUDES	TOTALLY AGREE	AGREE VERY MUCH	AGREE SLIGHTLY	NEUTRAL	DISAGREE SLIGHTLY	DISAGREE VERY MUCH	TOTALLY DISAGREE
1. If I fail partly, it is as bad as being a complete failure							
2. If others dislike you, you cannot be happy							
3. I should be happy all the time							
4. People will probably think less of me if I make a mistake							
5. My happiness depends more on other people than it does on me							
6. I should always have complete control over my feelings							
7. My life is wasted unless I am a success							
8. What other people think about me is very important							
9. I ought to be able to solve my problems quickly and without a great deal of effort							
10. If I don't set the highest standards for myself, I am likely to end up a second rate person							
11. I am nothing if a person I love doesn't love me							
12. A person should be able to control what happens to him							

ATTITUDES	TOTALLY AGREE	AGREE VERY MUCH	AGREE SLIGHTLY	NEUTRAL	DISAGREE SLIGHTLY	DISAGREE VERY MUCH	TOTALLY DISAGREE
13. If I am to be a worthwhile person, I must be truly outstanding in at least one major respect							
14. If you don't have other people to lean on, you are bound to be sad							
15. It is possible for a person to be scolded and not get upset							
16. I must be a useful, productive, creative person or life has no purpose							
17. I can find happiness without being loved by another person							
18. A person should do well at everything he undertakes							
19. If I do not do well all the time, people will not respect me							
20. I do not need the approval of other people in order to be happy							
21. If I try hard enough, I should be able to excel at anything I attempt							
22. People who have good ideas are more worthy than those who do not							
23. A person doesn't neeed to be well liked in order to be happy							
24. Whenever I take a chance or risk I am only looking for trouble							